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SEQUENCE LISTING

<110> Sleeman, Matthew
Murison, Greg

<120> Fibroblast Growth Factor Receptors and Methods for Their Use

<130> 11000.1037c5

<150> U.S. 09/823,038

<151> 2001-03-28

<150> U.S. 09/383,586

<151> 1999-08-26

<150> U.S. 09/276,268

<151> 1999-03-25

<150> PCT/NZ00/00015

<151> 2000-02-18

<150> U.S. 60/221,216

<151> 2000-07-25

<150> U.S. 10/157,444

<151> 2000-05-28

<150> PCT/NZ03/00105

<151> 2003-05-27

<160> 145

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 384

<212> DNA

<213> Mouse

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<221> misc_feature

<222> (1)...(384)

<223> n = A,T,C or G

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<211> 1967

<212> DNA

<213> Mouse

<400> 2

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ctgagccctg	agtggcgtcc	agtccagctc	ccagtgaccg	cgcccctgct	tcaggtccga	180

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ccggcgagat	gacgcggagc	cccgcgctgc	tgctgctgct	attggggggcc	ctcccgtcgg	240
ctgaggcggc	gcgaggaccc	ccaagaatgg	cagacaaagt	ggtcccacgg	caggtggccc	300
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tgtggaccaa	agatggccgc	acaatccaca	gtggctggag	ccgcttccgt	gtgctgcccc	420
agggctctgaa	ggtgaaggag	gtggaggccg	aggatgccgg	tgtttatgtg	tgcaaggcca	480
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ggtagcgccg	ccccgcccag	gccgggcccg	ggggcgccgg	ggcggggatg	cggcgcccgg	180
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acagtggcaa	gtacacgtgc	cgtgtatcta	acaaggccgg	tgccatcaac	gccacctaca	840
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ctgatggctc	ctacctcaac	aagctgctca	tctctcgggc	ccgccaggat	gatgctggca	1140
tgtacatctg	cctaggtgca	aataccatgg	gctacagttt	ccgtagcgcc	ttcctcactg	1200
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agatggcggg	caaggtgggc	ccacggcagg	tgccgggctg	ggccgcactg	tgccggctgca	180
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ttgacgcgcc	cagaggccgc	tgagcccagg	aagaagaagt	ggacactgag	cctgaagaac	660
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aacgccacct	acaaggtgga	tgtgatccag	cggacccgtt	ccaagcccgt	gctcacaggc	780
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cgccacaact	ccaccatcga	tgtgggcggc	cagaagtgtg	tggtgtgctg	cacgggtgac	960
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 <213> Mouse

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Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val
		35					40					45			
Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn
	50					55				60					
Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile
65				70					75					80	
Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu
			85					90					95		
Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser
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Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Xaa	Gly	Ile	Pro		
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<210> 6
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 <212> PRT
 <213> Mouse

<400> 6

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Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
			20					25					30		
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
		35					40					45			
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65				70						75					80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
			85						90					95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Gly	Ser
		115					120					125			
Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Ala	Arg	Pro	Arg
	130					135					140				
Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val
145				150						155					160
Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro
			165						170					175	
Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala
			180					185					190		
Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys
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Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly
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Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser
225				230						235					240
Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe
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Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His
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Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu
			340					345					350		
Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser
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Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val
	370					375					380				
Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys
385				390						395					400
Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro
			405						410					415	
Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala
			420					425					430		
Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile
		435					440					445			
Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr
	450					455					460				
Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu
465				470						475					480
Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val
			485						490					495	
Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp

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Gly Pro Arg 500 Gln Gln Val Gly Arg 505 Ile Glu Asn Asn Gly 510 Gly Arg Val
 515 520 525
 Ser

<210> 7
 <211> 439
 <212> PRT
 <213> Mouse

<400> 7
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 35 40 45
 Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met Arg Arg Arg Val
 50 55 60
 Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser
 65 70 75 80
 Gly His Pro Arg Pro Asp Ile Met Trp Met Lys Asp Asp Gln Thr Leu
 85 90 95
 Thr His Leu Glu Ala Ser Glu His Arg Lys Lys Lys Trp Thr Leu Ser
 100 105 110
 Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val
 115 120 125
 Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile
 130 135 140
 Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val Asn
 145 150 155 160
 Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val Arg
 165 170 175
 Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly
 180 185 190
 Ser Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys Phe
 195 200 205
 Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr
 210 215 220
 Leu Asn Lys Leu Leu Ile Ser Arg Ala Arg Gln Asp Asp Ala Gly Met
 225 230 235 240
 Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala
 245 250 255
 Phe Leu Thr Val Leu Pro Asp Pro Lys Pro Pro Pro Gly Pro Pro Met
 260 265 270
 Ala Ser Ser Ser Ser Ser Thr Ser Leu Pro Trp Pro Val Val Ile Gly
 275 280 285
 Ile Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Val Leu Leu Trp Leu
 290 295 300
 Cys Gln Thr Lys Lys Lys Pro Cys Ala Pro Ala Ser Thr Leu Pro Val
 305 310 315 320
 Pro Gly His Arg Pro Pro Gly Thr Ser Arg Glu Arg Ser Gly Asp Lys
 325 330 335
 Asp Leu Pro Ser Leu Ala Val Gly Ile Cys Glu Glu His Gly Ser Ala
 340 345 350
 Met Ala Pro Gln His Ile Leu Ala Ser Gly Ser Thr Ala Gly Pro Lys
 355 360 365
 Leu Tyr Pro Lys Leu Tyr Thr Asp Val His Thr His Thr His Thr His
 370 375 380
 Thr Cys Thr His Thr Leu Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro
 385 390 395 400
 Ala Cys Pro Leu Ser Val Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys

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Pro Glu Val Gly Ile Trp Gly Pro Arg Gln Gln Val Gly Arg Ile Glu
Asn Asn Gly Gly Arg Val Ser
405 410 415
420 425 430
435

<210> 8
<211> 322
<212> PRT
<213> Mouse

<400> 8
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Arg Trp Ser His Gly Arg Trp Pro Ala Gly Pro His Cys Ala Ala Ala
35 40 45
Val Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp
50 55 60
Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln
65 70 75 80
Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val Tyr Val
85 90 95
Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu
100 105 110
Val Val Leu Asp Asp Ile Ser Pro Gly Lys Glu Ser Leu Gly Pro Asp
115 120 125
Ser Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp Ala Arg
130 135 140
Pro Arg Phe Thr Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg
145 150 155 160
Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro
165 170 175
Arg Pro Asp Ile Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro
180 185 190
Glu Ala Ala Glu Pro Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn
195 200 205
Leu Arg Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn Arg
210 215 220
Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile Gln Arg Thr
225 230 235 240
Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val Asn Thr Thr Val
245 250 255
Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val Arg Ser Asp Val
260 265 270
Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly Ala Glu Gly
275 280 285
Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys Phe Val Val Leu
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Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr Leu Asn Lys
305 310 315 320
Pro Leu

<210> 9
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agcttgaaga acctgaagcc tgaagacagt ggcaagtaca cgtgccgtgt atctaacaag 180

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gcggactcgt	tccaagcctg	tgctcacagg	gacacaccct	gtgaacacaa	cgggtggactt	360
cgggtgggaca	acgtccttcc	agtgcaagg	gcgcagtgac	gtgaagcctg	tgatccagt	420
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gttccccaat	gtccacttag	caagtggggc	ctccctatcc	ttttcccttc	gttgtgggtt	780
atccttgcc	catagggagt	tcaggggtgc	tgcccatata	gttcacattt	gggctgggtg	840
ccccattaat	atagggacat	tctgtcccct	actcttcttc	ttaatctctc	ttgcagaccc	900
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ccagaccaag	aagaagccat	gtgccccagc	atctacactt	cctgtgcctg	ggcatcgtcc	1080
cccagggaca	tcccgagaac	gcagtgggtga	caaggacctg	ccctcattgg	ctgtgggcat	1140
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tggccccaag	ctgtacccca	agctatacac	agatgtgcac	acacacacac	atacacacac	1260
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agtgtctaat	acagcgaatc	tccaagcact	gtgtcctgag	gtaggcata	gggggccaag	1380
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 <213> Mouse

<400> 10
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 <211> 37
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 <213> Mouse

<400> 11
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 <211> 18
 <212> DNA
 <213> Mouse

<400> 12
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<210> 13
 <211> 373
 <212> PRT
 <213> Mouse

<400> 13
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 Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
 20 25 30
 Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
 35 40 45
 Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
 50 55 60
 Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
 65 70 75 80
 Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys

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Ala	Thr	Asn	Gly	85 Phe	Gly	Ser	Leu	Ser	90 Val	Asn	Tyr	Thr	Leu	95 Ile	Ile
Met	Asp	Asp	100 Ile	Ser	Pro	Gly	Lys	105 Glu	Ser	Pro	Gly	Pro	110 Gly	Gly	Ser
Ser	Gly	Gly	115 Gln	Glu	Asp	Pro	120 Ala	Ser	Gln	Gln	Trp	125 Ala	Arg	Pro	Arg
Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val
145 Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro
Asp	Ile	Met	165 Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	175 Glu	Ala
Ser	Glu	His	180 Arg	Lys	Lys	Lys	Trp	185 Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys
Pro	Glu	Asp	195 Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly
Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser
225 Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe
Gly	Gly	Thr	245 Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro
Val	Ile	Gln	260 Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His
Asn	Ser	Thr	275 Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr
Gly	Asp	Val	290 Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu
Ile	Ser	Arg	310 Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly
Ala	Asn	Thr	325 Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu
Pro	Asp	Pro	340 Lys	Pro	Pro	Gly	Pro	345 Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser
Thr	Ser	Leu	355 Pro	Trp				360							
			370												

<210> 14
 <211> 135
 <212> PRT
 <213> Mouse

<400> 14

Cys	Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val
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Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys
			20					25					30		
Asp	Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala
		35					40					45			
Met	Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys
		50				55					60				
Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His
65					70					75					80
Thr	Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro
				85				90							
Ala	Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys
			100					105					110		
Pro	Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu
		115					120					125			
Asn	Asn	Gly	Gly	Arg	Val	Ser									
		130				135									

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<210> 15
 <211> 37
 <212> PRT
 <213> Mouse

<400> 15

Arg Val Glu Tyr Gly Ser Glu Gly Arg His Asn Ser Thr Ile Asp Val
 1 5 10 15
 Gly Gly Gln Lys Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg
 20 25 30
 Pro Asp Gly Ser Tyr
 35

4

<210> 16
 <211> 1515
 <212> DNA
 <213> Human

<400> 16

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gcccggctgg	gccgcactgt	gcggctgcag	tgcccagtg	agggggaccc	gccgccgctg	180
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gccaccaacg	gcttcggcag	ccttagcgct	aactacaccc	tcgtcgtgct	ggatgacatt	360
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agccagcagt	gggcacgacc	gcgcttcaca	cagccctcca	agatgaggcg	ccgggtgatc	480
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gacatcacgt	ggatgaagga	cgaccaggcc	ttgacgcgcc	cagaggccgc	tgagcccagg	600
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tgccgcgtgt	cgaaccgcgc	gggcgccatc	aacgccacct	acaagggtga	tgtgatccag	720
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ctgaagcgcg	tggagtacgg	cgccgagggc	cgccacaact	ccaccatcga	tgtgggcggc	900
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<210> 17
 <211> 504
 <212> PRT
 <213> Human

<400> 17

Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80

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Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
				85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105					110		
Thr	Leu	Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu	Gly
		115					120					125			
Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp
	130				135						140				
Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile
145				150						155					160
Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly
				165					170					175	
His	Pro	Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	Thr
			180					185					190		
Arg	Pro	Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu
		195					200					205			
Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser
	210					215					220				
Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln
225					230					235					240
Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr
				245					250					255	
Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser
			260					265					270		
Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ala
		275					280					285			
Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val
	290					295					300				
Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu
305					310					315					320
Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr
				325					330					335	
Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe
			340					345					350		
Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser
		355					360					365			
Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro
	370					375					380				
Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln
385					390					395					400
Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly
				405					410					415	
His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu
			420					425					430		
Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu
		435					440					445			
Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro
	450					455					460				
Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr
465					470					475					480
His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	Val
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His	Gln	His	Ile	His	Tyr	Gln	Cys								
			500												

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 <212> DNA
 <213> Human

<400> 18
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60
 120

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gcccggctgg	gccgcactgt	gcggctgcag	tgcccagtg	agggggaccc	gccgccgctg	180
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ccgcaggggc	tgaaggatga	gcaggtggag	cgggaggatg	ccggcgtgta	cgtgtgcaag	300
gccaccaacg	gcttcggcag	ccttagcgtc	aactacaccc	tcgtcgtgct	ggatgacatt	360
agcccagggg	aggagagcct	ggggcccgac	agctcctctg	ggggtcaaga	ggaccccgcc	420
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gacatcacgt	ggatgaagga	cgaccaggcc	ttgacgcgcc	cagaggccgc	tgagcccagg	600
aagaagaagt	ggacactgag	cctgaagaac	ctgcggccgg	aggacagcgg	caaatacacc	660
tgccgcgtgt	cgaaccgcgc	gggcgccatc	aacgccacct	acaaggatga	tgtgatccac	720
ccaaaaccgc	aagggccacc	tgtggcctcc	tcgtcctcgg	ccactagcct	gccgtggccc	780
gtggtcatcg	gcattcccagc	cggcgctgtc	ttcatcctgg	gcaccctgct	cctgtggcctt	840
tgccaggccc	agaagaagcc	gtgcaccccc	gcgcctgccc	ctcccctgcc	tgggcaccgc	900
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agcgctggcc	ctggtgtggg	gctgtgtgag	gagcatgggt	ctccggcagc	ccccagcac	1020
ttactgggcc	caggcccagt	tgctggccct	aagttgtacc	ccaaactcta	cacagacatc	1080
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<210> 19
 <211> 386
 <212> PRT
 <213> Human

<400> 19

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala
			20					25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
		35					40					45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
		50				55					60				
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
65					70				75						80
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
				85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105					110		
Thr	Leu	Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu	Gly
		115					120					125			
Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp
	130					135					140				
Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile
145					150					155					160
Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly
				165					170					175	
His	Pro	Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	Thr
			180					185					190		
Arg	Pro	Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu
		195					200					205			
Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser
	210					215					220				
Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	His
225					230					235					240
Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser
			245						250					255	
Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile
			260					265					270		
Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys
		275					280					285			
Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr
	290					295					300				

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Ala Arg Asp Arg Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala Ala Leu
 305 310 315 320
 Ser Ala Gly Pro Gly Val Gly Leu Cys Glu Glu His Gly Ser Pro Ala
 325 330 335
 Ala Pro Gln His Leu Leu Gly Pro Gly Pro Val Ala Gly Pro Lys Leu
 340 345 350
 Tyr Pro Lys Leu Tyr Thr Asp Ile His Thr His Thr His Thr His Ser
 355 360 365
 His Thr His Ser His Val Glu Gly Lys Val His Gln His Ile His Tyr
 370 375 380
 Gln Cys
 385

<210> 20
 <211> 1230
 <212> DNA
 <213> Human

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 gcccggtctg gccgcactgt gcggctgcag tgcccagtgag agggggaccc gccgccgctg 180
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<210> 21
 <211> 409
 <212> PRT
 <213> Human

<400> 21
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
 20 25 30
 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80
 Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
 85 90 95
 Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
 100 105 110
 Thr Leu Val Val Leu Asp Asp Ile Ser Pro Gly Lys Glu Ser Leu Gly
 115 120 125

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Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp
130						135					140				
Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn
145					150					155					160
Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg
				165					170					175	
Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly
			180					185					190		
Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe
		195					200					205			
Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr
210						215					220				
Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met
225					230					235					240
Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala
				245					250					255	
Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala
			260					265					270		
Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile
		275					280					285			
Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys
290						295					300				
Gln	Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro
305					310					315					320
Gly	His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp
				325					330					335	
Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys
			340					345					350		
Glu	Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly
		355					360					365			
Pro	Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His
370						375					380				
Thr	His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys
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Val	His	Gln	His	Ile	His	Tyr	Gln	Cys							
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 <212> DNA
 <213> Human

<400> 22	
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gtgaggctca	agtgcgtggc
gaccaggcct	tgacgcgccc
ctgaagaacc	tgccggccga
ggcgccatca	acgccaccta
ctcacaggca	cgcaccccgt
tgcaaggtgc	gcagcgacgt
gccgagggcc	gccacaactc
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gtcttcaccc	tgggcaccct
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gctgctcctg	ctgccgcccgc
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cctcggccc	acatcacgtg
gagcccagga	agaagaagt
aaatacacct	gccgcgtgtc
gtgatccagc	ggacccgttc
gtggacttcg	gggggaccac
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cccgtgggtca	tcggcatccc
ctttgccagg	cccagaagaa
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gaggagcatg	ggtctccggc	agccccccag	cacttactgg	gcccaggccc	agttgctggc	1320
cctaagttgt	accccaaact	ctacacagac	atccacacac	acacacacac	acactctcac	1380
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<210> 23
 <211> 477
 <212> PRT
 <213> Human

<400> 23

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala
			20					25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
		35				40						45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
	50					55					60				
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
65					70				75						80
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
				85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105					110		
Thr	Leu	Val	Val	Leu	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met
		115					120					125			
Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys
	130					135					140				
Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp
145					150				155						160
Asp	Gln	Ala	Leu	Thr	Arg	Pro	Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys
				165					170					175	
Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr
			180					185					190		
Thr	Cys	Arg	Val	Ser	Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys
		195					200					205			
Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr
	210					215					220				
His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln
225					230					235					240
Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg
				245					250					255	
Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly
			260					265					270		
Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro
		275					280					285			
Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	Asp
	290					295					300				
Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser
305					310					315					320
Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Gln	Gly
				325					330					335	
Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val
			340					345					350		
Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu
		355					360					365			
Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala
	370					375					380				
Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser
385					390					395					400
Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly
				405					410					415	

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Val Gly Leu Cys Glu Glu His Gly Ser Pro Ala Ala Pro Gln His Leu
 420 425 430
 Leu Gly Pro Gly Pro Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr
 435 440 445
 Thr Asp Ile His Thr His Thr His Ser His Thr His Ser His
 450 455 460
 Val Glu Gly Lys Val His Gln His Ile His Tyr Gln Cys
 465 470 475

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 <211> 1242
 <212> DNA
 <213> Human

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 ccctccaaga tgaggcgccg ggtgatcgca cggcccgctg gtagctccgt gcggctcaag 240
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 cggccggagg acagcggcaa atacacctgc cgcgtgtcga accgcgcggg cgccatcaac 420
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 caccctgtga acacgacggt ggacttcggg gggaccacgt cttccagtg caaggtgctg 540
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<210> 25
 <211> 413
 <212> PRT
 <213> Human

<400> 25
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 20 25 30
 Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro
 35 40 45
 Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met
 50 55 60
 Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys
 65 70 75 80
 Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp
 85 90 95
 Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys
 100 105 110
 Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr
 115 120 125
 Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys
 130 135 140
 Val Asp Val Ile Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr
 145 150 155 160

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His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln
				165					170					175	
Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg
			180					185					190		
Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly
		195					200					205			
Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro
	210					215					220				
Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	Asp
225					230					235					240
Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser
			245						250					255	
Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Gln	Gly
			260					265					270		
Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val
		275					280						285		
Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu
	290					295					300				
Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala
305					310					315					320
Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser
				325					330					335	
Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly
			340					345					350		
Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu
		355					360					365			
Leu	Gly	Pro	Gly	Pro	Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr
	370					375					380				
Thr	Asp	Ile	His	Thr	His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His
385					390					395					400
Val	Glu	Gly	Lys	Val	His	Gln	His	Ile	His	Tyr	Gln	Cys			
				405					410						

<210> 26
 <211> 876
 <212> DNA
 <213> Human

<400> 26

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<210> 27
 <211> 291
 <212> PRT
 <213> Human

<400> 27

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
Thr	Leu	Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu	Gly
Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp
Asp	Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr
Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe
Ile	Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro
Cys	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly
Thr	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala
Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro
Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro	Val	Ala	Gly	Pro	Lys
Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr	His	Thr	His	Thr	His
Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	Val	His	Gln	His	Ile	His
Tyr	Gln	Cys													

<210> 28
 <211> 1080
 <212> DNA
 <213> Human

<400> 28	
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gaccaggcct	tgacgcgccc
ctgaagaacc	tgccggccga
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ggcgctgtct	tcatacctggg
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cgacagcgag	acaaggacct
ctgtgtgagg	agcatgggtc
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gagcccagga	agaagaagtg
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gtgatccacc	caaaaccgca
ccgtggcccc	tggtcatcgg
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<210> 29

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<211> 359
<212> PRT
<213> Human

<400> 29

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			20					25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
		35					40					45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
	50					55					60				
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
65					70				75						80
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
				85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105					110		
Thr	Leu	Val	Val	Leu	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met
		115					120					125			
Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys
	130					135					140				
Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp
145					150					155					160
Asp	Gln	Ala	Leu	Thr	Arg	Pro	Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys
				165					170					175	
Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr
			180					185					190		
Thr	Cys	Arg	Val	Ser	Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys
		195					200					205			
Val	Asp	Val	Ile	His	Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser	Ser
	210					215					220				
Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala
225					230					235					240
Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln	Ala
				245					250					255	
Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly	His
			260					265					270		
Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro
		275					280					285			
Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu	Glu
	290					295					300				
His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro	Val
305					310					315					320
Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr	His
				325					330					335	
Thr	His	Thr	His	Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	Val	His
			340					345					350		
Gln	His	Ile	His	Tyr	Gln	Cys									
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<211> 1149
<212> DNA
<213> Human

<400> 30

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accatgtgga	ccaaggatgg	ccgcaccatc	cacagcggct	ggagccgctt	ccgcgtgctg	240
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ggcccagttg	ctggccctaa	gttgtacccc	aaactctaca	cagacatcca	cacacacaca	1080
cacacacact	ctcacacaca	ctcacacgtg	gagggcaagg	tccaccagca	catccactat	1140
cagtgtag						1149

<210> 31
 <211> 382
 <212> PRT
 <213> Human

<400> 31

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
1				5					10				15		
Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala
			20					25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
		35					40					45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
	50					55					60				
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
65					70					75					80
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
				85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105						110	
Thr	Leu	Val	Val	Leu	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly
		115					120						125		
Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe
	130					135					140				
Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys
145					150					155					160
Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val
				165					170					175	
Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg
			180					185					190		
Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln
		195					200						205		
Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr
	210					215					220				
Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Gln
225					230					235					240
Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro
				245					250					255	
Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu
			260					265					270		
Leu	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro
		275					280					285			
Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg
	290					295					300				
Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro
305					310					315					320
Gly	Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His

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325
 Leu Leu Gly Pro Gly Pro Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu
 340
 Tyr Thr Asp Ile His Thr His Thr His Thr His Ser His Thr His Ser
 355
 His Val Glu Gly Lys Val His Gln His Ile His Tyr Gln Cys
 370 375 380

<210> 32
 <211> 888
 <212> DNA
 <213> Human

<400> 32
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 tcctctgggg gtcaagagga ccccgccagc cagcagtggg cacgaccgcg cttcacacag 180
 ccctccaaga tgaggcgccg ggtgatcgca cggcccgtgg gtagctccgt gcggctcaag 240
 tgcgtggcca gcgggcaccc tcggcccgac atcacgtgga tgaaggacga ccaggccttg 300
 acgcgcccag aggccgctga gcccaggaag aagaagtgga cactgagcct gaagaacctg 360
 cggccggagg acagcggcaa atacacctgc cgcgtgtcga accgcgcggg cgccatcaac 420
 gccacctaca aggtggatgt gatccaccca aaaccgcaag ggccacctgt ggcctcctcg 480
 tcctcggcca ctagcctgcc gtggcccgtg gtcacggca tccagccgg cgctgtcttc 540
 atcctgggca ccctgctcct gtggctttgc caggcccaga agaagccgtg cacccccgcg 600
 cctgcccctc ccctgcctgg gcaccgcccg ccggggacgg cccgcgaccg cagcggagac 660
 aaggaccttc cctcgttggc cgccctcagc gctggccctg gtgtggggct gtgtgaggag 720
 catgggtctc cggcagcccc ccagcactta ctgggcccag gccagttgc tggccctaag 780
 ttgtaccca aactctacac agacatccac acacacacac acacacactc tcacacacac 840
 tcacacgtgg agggcaaggt ccaccagcac atccactatc agtgctag 888

<210> 33
 <211> 295
 <212> PRT
 <213> Human

<400> 33
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
 20 25 30
 Lys Glu Ser Leu Gly Pro Asp Ser Ser Gly Gly Gln Glu Asp Pro
 35 40 45
 Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met
 50 55 60
 Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys
 65 70 75 80
 Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp
 85 90 95
 Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys
 100 105 110
 Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr
 115 120 125
 Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys
 130 135 140
 Val Asp Val Ile His Pro Lys Pro Gln Gly Pro Pro Val Ala Ser Ser
 145 150 155 160
 Ser Ser Ala Thr Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro Ala
 165 170 175
 Gly Ala Val Phe Ile Leu Gly Thr Leu Leu Leu Trp Leu Cys Gln Ala
 180 185 190
 Gln Lys Lys Pro Cys Thr Pro Ala Pro Ala Pro Pro Leu Pro Gly His
 195 200 205
 Arg Pro Pro Gly Thr Ala Arg Asp Arg Ser Gly Asp Lys Asp Leu Pro

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210	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu	Glu
225	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro	Val
	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr	His
	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	Val	His
	Gln	His	Ile	His	Tyr	Gln	Cys									
290																

<210> 34
 <211> 957
 <212> DNA
 <213> Human

<400> 34	atgacgccga	gccccctggt	gctgctcctg	ctgccgccgc	tgctgctggg	ggccttccca	60
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	tcctctgggg	gtcaagagga	ccccgccagc	cagcagtggg	agcggacccg	ttccaagccc	180
	gtgctcacag	gcacgcaccc	cgtgaacacg	acggtggact	tcggggggac	cacgtccttc	240
	cagtgcgaag	tgcgcagcga	cgtgaagccg	gtgatccagt	ggctgaagcg	cgtggagtag	300
	ggcgcggagg	gccgccacaa	ctccaccatc	gatgtgggcg	gccagaagtt	tgtggtgctg	360
	cccacgggtg	acgtgtgggtc	gcggcccgcg	ggctcctacc	tcaataagct	gctcatcacc	420
	cgtgcccgcc	aggacgatgc	gggcatgtac	atctgccttg	gcgccaacac	catgggctac	480
	agcttccgca	gcgccttcct	caccgtgctg	ccagacccaa	aaccgcaagg	gccacctgtg	540
	gcctcctcgt	cctcggccac	tagcctgccg	tggcccgtgg	tcatcggcat	cccagccggc	600
	gctgtcttca	tcctgggcac	cctgctcctg	tggctttgcc	aggcccagaa	gaagccgtgc	660
	acccccgcgc	ctgcccctcc	cctgcctggg	caccgcccgc	cggggacggc	ccgcgaccgc	720
	agcggagaca	aggaccttcc	ctcgttggcc	gccctcagcg	ctggccctgg	tgtggggctg	780
	tgtgaggagc	atgggtctcc	ggcagccccc	cagcacttac	tgggcccagg	cccagttgct	840
	ggccctaagt	tgtaccccaa	actctacaca	gacatccaca	cacacacaca	cacacactct	900
	cacacacact	cacacgtgga	gggcaaggtc	caccagcaca	tccactatca	gtgctag	957

<210> 35
 <211> 318
 <212> PRT
 <213> Human

<400> 35	Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
1	Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly
	Lys	Glu	Ser	Leu	Gly	Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro
	Ala	Ser	Gln	Gln	Trp	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly
	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe
65	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys
	Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val
	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg
	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln
130	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr
145	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Gln

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Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro
			180					185					190		
Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu
		195					200					205			
Leu	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro
	210					215					220				
Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg
225					230					235					240
Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro
				245					250					255	
Gly	Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His
			260					265					270		
Leu	Leu	Gly	Pro	Gly	Pro	Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu
		275					280					285			
Tyr	Thr	Asp	Ile	His	Thr	His	Thr	His	Thr	His	Ser	His	Thr	His	Ser
	290					295					300				
His	Val	Glu	Gly	Lys	Val	His	Gln	His	Ile	His	Tyr	Gln	Cys		
305					310					315					

<210> 36
 <211> 1161
 <212> DNA
 <213> Human

<400> 36	
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ccggccgccg	ccgcccagagc
gtgatcgcac	ggcccgtggg
cggcccgaca	tcacgtggat
cccaggaaga	agaagtggac
tacacctgcc	gcgtgtcgaa
atccagcgga	cccgttccaa
gacttcgggg	ggaccacgtc
cagtggctga	agcgcgtgga
ggcggccaga	agtttgtggt
tacctcaata	agctgtctcat
cttggcgcca	acaccatggg
ccaaaaccgc	aaggggccacc
gtggtcatcg	gcaccccagc
tgccaggccc	agaagaagcc
ccgccgggga	cggcccgcgga
agcgttgccc	ctggtgtggg
ttactgggccc	caggcccagt
cacacacaca	cacacacaca
cacatccact	atcagtgcta
	g
	60
	120
	180
	240
	300
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	1080
	1140
	1161

<210> 37
 <211> 386
 <212> PRT
 <213> Human

<400> 37															
Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
1				5				10					15		
Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Ala	Arg	Pro	Arg	Phe	Thr
			20					25					30		
Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val	Gly	Ser
		35				40					45				
Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro	Asp	Ile
	50					55					60				
Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	Thr	Arg	Pro	Glu	Ala	Ala	Glu
65					70					75				80	
Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Arg	Pro	Glu

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Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Arg	Ala	Gly	Ala	Ile
Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser	Lys	Pro
Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly
Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile
Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser
Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp
Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr
Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn
Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp
Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser
Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile
Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys
Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr
Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu
Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro	Ala
Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro	Val	Ala	Gly	Pro	Lys	Leu
Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr	His	Thr	His	Thr	His	Ser
His	Thr	His	Ser	His	Val	Glu	Gly	Lys	Val	His	Gln	His	Ile	His	Tyr
Gln	Cys														

<210> 38
 <211> 795
 <212> DNA
 <213> Human

<400> 38

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ccggccgccc	ccgcccagag	ccccccaaag	atggcgagaca	agggtggtccc	acggcaggtg	120
gcccggctgg	gccgcactgt	gcggctgcag	tgcccagtg	agggggaccc	gccgccgctg	180
accatgtgga	ccaaggatgg	ccgcaccatc	cacagcggct	ggagccgctt	ccgcgtgctg	240
ccgcaggggc	tgaaggatga	gcaggtggag	cgaggagatg	ccggcgtgta	cgtgtgcaag	300
gccaccaacg	gcttcggcag	ccttagcgtc	aactacaccc	tcgtcgtgct	ggacccaaaa	360
ccgcaagggc	cacctgtggc	ctcctcgtcc	tcggccacta	gcctgcccgtg	gcccgtgggtc	420
atcggcatcc	cagccggcgc	tgtcttcac	ctgggcaccc	tgctcctgtg	gctttgccag	480
gcccagaaga	agccgtgcac	ccccgcgcct	gcccctcccc	tgcttgggca	ccgcccgccg	540
gggacggccc	gcgaccgcag	cggagacaag	gaccttcctt	cgttggccgc	cctcagcgct	600
ggccctgggtg	tggggctgtg	tgaggagcat	gggtctccgg	cagcccccca	gcacttactg	660
ggcccaggcc	cagttgctgg	ccctaagttg	taccccaaac	tctacacaga	catccacaca	720
cacacacaca	cacactctca	cacacactca	cacgtggagg	gcaaggtcca	ccagcacatc	780
cactatcagt	gctag					795

<210> 39
 <211> 264

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<212> PRT
<213> Human

<400> 39

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala
			20					25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
		35				40						45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
	50					55					60				
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
65					70				75						80
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
			85					90						95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105					110		
Thr	Leu	Val	Val	Leu	Asp	Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser
		115					120					125			
Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro
	130					135					140				
Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln
145					150				155						160
Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly
			165					170						175	
His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu
			180					185					190		
Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu
		195					200					205			
Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro
	210					215					220				
Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr
225					230				235						240
His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	Val
				245					250					255	
His	Gln	His	Ile	His	Tyr	Gln	Cys								
			260												

<210> 40
<211> 603
<212> DNA
<213> Human

<400> 40

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tcctctgggg	gtcaagagga	ccccgccagc	cagcagtggg	acccaaaacc	gcaagggcca	180
cctgtggcct	cctcgtcctc	ggccactagc	ctgccgtggc	ccgtgggtcat	cggcatccca	240
gccggcgctg	tcttcatacct	gggcaccctg	ctcctgtggc	tttgccaggc	ccagaagaag	300
ccgtgcaccc	ccgcgcctgc	ccctcccctg	cctgggcacc	gcccgccggg	gacggcccgc	360
gaccgcagcg	gagacaagga	ccttccctcg	ttggccgccc	tcagcgctgg	ccctgggtgtg	420
gggctgtgtg	aggagcatgg	gtctccggca	gccccccagc	acttactggg	cccaggccca	480
gttgctggcc	ctaagttgta	ccccaaactc	tacacagaca	tccacacaca	cacacacaca	540
cactctcaca	cacactcaca	cgtggagggc	aaggtccacc	agcacatcca	ctatcagtgc	600
tag						603

<210> 41
<211> 200
<212> PRT
<213> Human

<400> 41

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Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu	
1				5					10				15			
Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly	
			20					25					30			
Lys	Glu	Ser	Leu	Gly	Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	
		35					40					45				
Ala	Ser	Gln	Gln	Trp	Asp	Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser	
	50					55					60					
Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	
65					70					75					80	
Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln	
				85					90					95		
Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly	
			100					105					110			
His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu	
		115					120					125				
Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu	
	130					135					140					
Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro	
145					150					155					160	
Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr	
				165					170					175		
His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	Val	
			180					185					190			
His	Gln	His	Ile	His	Tyr	Gln	Cys									
		195					200									

<210> 42
 <211> 807
 <212> DNA
 <213> Human

<400> 42	
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ccggccgccg	ccgcccagag acgaccgcgc ttcacacagc cctccaagat gaggcgccgg 120
gtgatcgac	ggcccgtggg tagctccgtg cggtcaagt gcgtggccag cgggcaccct 180
cggcccgaca	tcacgtggat gaaggacgac caggccttga cgcgccaga ggccgctgag 240
cccaggaaga	agaagtggac actgagcctg aagaacctgc ggccggagga cagcggcaaa 300
tacacctgcc	gcgtgtcgaa ccgcgcgggc gccatcaacg ccacctaca ggtggatgtg 360
atccacccaa	aaccgcaagg gccacctgtg gcctcctcgt cctcggccac tagcctgccg 420
tggtccgtgg	tcacgtggat cccagccggc gctgtcttca tcctgggcac cctgctcctg 480
tggttttgcc	aggcccagaa gaagccgtgc accccgcgc ctgccctcc cctgcctggg 540
caccgcccgc	cggggacggc ccgcgaccgc agcggagaca aggaccttcc ctcgttggcc 600
gccctcagcg	ctggccctgg tgtggggctg tgtgaggagc atgggtctcc ggcagcccc 660
cagcacttac	tgggccaggg cccagttgct ggccctaagt tgtaccccaa actctacaca 720
gacatccaca	cacacacaca cacactct cacacacact cacacgtgga gggcaaggtc 780
caccagcaca	tccactatca gtgctag 807

<210> 43
 <211> 268
 <212> PRT
 <213> Human

<400> 43																
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Ala	Arg	Pro	Arg	Phe	Thr	
			20					25					30			
Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val	Gly	Ser	
		35					40					45				
Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro	Asp	Ile	
	50					55					60					
Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	Thr	Arg	Pro	Glu	Ala	Ala	Glu	

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65					70					75					80
Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Arg	Pro	Glu
				85					90					95	
Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Arg	Ala	Gly	Ala	Ile
			100					105					110		
Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	His	Pro	Lys	Pro	Gln	Gly	Pro
		115					120					125			
Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val
	130					135					140				
Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu	Leu
145					150					155				160	
Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala	Pro
			165						170					175	
Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser	Gly
			180					185					190		
Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly	Val
		195					200					205			
Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu	Leu
	210					215					220				
Gly	Pro	Gly	Pro	Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr
225					230					235					240
Asp	Ile	His	Thr	His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His	Val
				245					250					255	
Glu	Gly	Lys	Val	His	Gln	His	Ile	His	Tyr	Gln	Cys				
			260					265							

<210> 44
 <211> 876
 <212> DNA
 <213> Human

<400> 44																
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gtgaacacga	cggtggactt	cggggggacc	acgtccttcc	agtgcagggt	gcgcagcgac											180
gtgaagccgg	tgatccagtg	gctgaagcgc	gtggagtacg	gcgccgaggg	ccgccacaac											240
tccaccatcg	atgtgggcgg	ccagaagttt	gtggtgctgc	ccacgggtga	cgtgtggtcg											300
cgggccgacg	gctcctacct	caataagctg	ctcatcaccc	gtgcccgcga	ggacgatgcg											360
ggcatgtaca	tctgccttgg	cgccaacacc	atgggctaca	gcttccgcag	cgcttccctc											420
accgtgctgc	cagacccaaa	accgcaaggg	ccacctgtgg	cctcctcgtc	ctcggccact											480
agcctgccgt	ggcccgtggt	catcggcatc	ccagccggcg	ctgtcttcat	cctgggcacc											540
ctgctcctgt	ggctttgccca	ggcccagaag	aagccgtgca	cccccgcgcc	tgcccctccc											600
ctgcctgggc	accgcccgcg	ggggacggcc	cgcgaccgca	gcggagacaa	ggaccttccc											660
tcgttgggcg	ccctcagcgc	tggccctggt	gtggggctgt	gtgaggagca	tgggtctccg											720
gcagcccccc	agcacttact	gggcccaggc	ccagttgctg	gccctaagtt	gtaccccaaa											780
ctctacacag	acatccacac	acacacacac	acacactctc	acacacactc	acacgtggag											840
ggcaagggtcc	accagcacat	ccactatcag	tgctag													876

<210> 45
 <211> 291
 <212> PRT
 <213> Human

<400> 45																
Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu		
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Glu	Arg	Thr	Arg	Ser	Lys	
			20				25					30				
Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	
		35				40					45					
Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	
	50				55					60						
Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	

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65	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly
					85					90					95	
	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile
				100					105					110		
	Thr	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala
			115					120					125			
	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro
		130					135					140				
	Asp	Pro	Lys	Pro	Gln	Gly	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr
		145				150					155					160
	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe
				165						170					175	
	Ile	Leu	Gly	Thr	Leu	Leu	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro
			180						185					190		
	Cys	Thr	Pro	Ala	Pro	Ala	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly
			195					200					205			
	Thr	Ala	Arg	Asp	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala
		210					215					220				
	Leu	Ser	Ala	Gly	Pro	Gly	Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro
		225				230					235					240
	Ala	Ala	Pro	Gln	His	Leu	Leu	Gly	Pro	Gly	Pro	Val	Ala	Gly	Pro	Lys
				245						250					255	
	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Ile	His	Thr	His	Thr	His	Thr	His
			260						265				270			
	Ser	His	Thr	His	Ser	His	Val	Glu	Gly	Lys	Val	His	Gln	His	Ile	His
		275						280					285			
	Tyr	Gln	Cys													
		290														

<210> 46
 <211> 522
 <212> DNA
 <213> Human

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	gccactagcc	tgccgtggcc	cgtgggtcatc	ggcatcccag	ccggcgctgt	cttcatcctg	180
	ggcaccctgc	tcctgtggct	ttgccaggcc	cagaagaagc	cgtgcacccc	cgcgccctgcc	240
	cctcccctgc	ctgggcaccg	cccgccgggg	acggcccgcg	accgcagcgg	agacaaggac	300
	cttccctcgt	tggccgccct	cagcgtctgg	cctgggtgtg	ggctgtgtga	ggagcatggg	360
	tctccggcag	ccccccagca	cttactgggc	ccaggcccag	ttgctggccc	taagttgtac	420
	cccaaactct	acacagacat	ccacacacac	acacacacac	actctcacac	acactcacac	480
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<210> 47
 <211> 173
 <212> PRT
 <213> Human

<400> 47	Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
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	Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Asp	Pro	Lys	Pro	Gln	Gly
				20					25				30			
	Pro	Pro	Val	Ala	Ser	Ser	Ser	Ser	Ala	Thr	Ser	Leu	Pro	Trp	Pro	Val
			35					40				45				
	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Leu	Leu
		50					55					60				
	Leu	Trp	Leu	Cys	Gln	Ala	Gln	Lys	Lys	Pro	Cys	Thr	Pro	Ala	Pro	Ala
	65				70					75				80		
	Pro	Pro	Leu	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ala	Arg	Asp	Arg	Ser

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				85					90					95			
Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Ala	Leu	Ser	Ala	Gly	Pro	Gly		
			100					105					110				
Val	Gly	Leu	Cys	Glu	Glu	His	Gly	Ser	Pro	Ala	Ala	Pro	Gln	His	Leu		
		115					120					125					
Leu	Gly	Pro	Gly	Pro	Val	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr		
		130				135					140						
Thr	Asp	Ile	His	Thr	His	Thr	His	Thr	His	Ser	His	Thr	His	Ser	His		
145					150					155					160		
Val	Glu	Gly	Lys	Val	His	Gln	His	Ile	His	Tyr	Gln	Cys					
				165					170								

<210> 48
 <211> 1072
 <212> DNA
 <213> Human

<400> 48																	
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gcccggctgg	gccgcactgt	gcggctgcag	tgcccagtg	agggggaccc	gccgccgctg											180	
accatgtgga	ccaaggatgg	ccgcaccatc	cacagcggct	ggagccgctt	ccgcgtgctg											240	
ccgcaggggc	tgaaggtgaa	gcaggtggag	cgggaggatg	ccggcgtgta	cgtgtgcaag											300	
gccaccaacg	gcttcggcag	ccttagcgtc	aactacaccc	tcgtcgtgct	ggatgacatt											360	
agcccaggga	aggagagcct	ggggcccagc	agctcctctg	ggggtcaaga	ggaccccgcc											420	
agccagcagt	gggcacgacc	gcgcttcaca	cagccctcca	agatgaggcg	ccgggtgatc											480	
gcacggcccg	tgggtagctc	cgtgcggctc	aagtgcgtgg	ccagcgggca	ccctcggccc											540	
gacatcacgt	ggatgaagga	cgaccaggcc	ttgacgcgcc	cagaggccgc	tgagcccagg											600	
aagaagaagt	ggacactgag	cctgaagaac	ctgcggccgg	aggacagcgg	caaatacacc											660	
tgccgcgtgt	cgaaccgcgc	gggcgccatc	aacgccacct	acaagggtga	tgtgatccag											720	
cggacccgtt	ccaagcccgt	gctcacaggc	acgcaccccg	tgaacacgac	ggtggacttc											780	
ggggggacca	cgctcttcca	gtgcaagggtg	cgacgcgacg	tgaagccggt	gatccagtgg											840	
ctgaagcgcg	tggagtacgg	cgccgagggc	cgccacaact	ccaccatcga	tgtgggcggc											900	
cagaagtgtg	tgggtgctgcc	cacgggtgac	gtgtggtcgc	ggcccagcgg	ctcctacctc											960	
aataagctgc	tcatcacccg	tgcccgccag	gacgatgcgg	gcatgtacat	ctgccttggc											1020	
gccaacacca	tgggctacag	cttccgcagc	gccttcctca	ccgtgctgcc	ag											1072	

<210> 49
 <211> 357
 <212> PRT
 <213> Human

<400> 49																	
Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu		
1				5				10					15				
Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala		
			20					25					30				
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg		
		35				40						45					
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr		
		50				55					60						
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu		
65					70				75						80		
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val		
				85				90						95			
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr		
			100					105					110				
Thr	Leu	Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu	Gly		
		115					120					125					
Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp		
	130					135					140						
Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile		
145					150					155					160		

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Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly
				165					170					175	
His	Pro	Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	Thr
			180					185					190		
Arg	Pro	Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu
		195					200					205			
Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser
	210					215					220				
Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln
225					230					235					240
Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr
				245					250					255	
Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser
			260					265					270		
Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ala
		275					280					285			
Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val
	290					295					300				
Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu
305					310					315					320
Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr
				325					330					335	
Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe
			340					345					350		
Leu	Thr	Val	Leu	Pro											
		355													

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 <211> 718
 <212> DNA
 <213> Human

<400> 50	
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gcccggctgg gccgcactgt gcggctgcag tgcccagtg agggggaccc gccgccgctg	180
accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgcgtgctg	240
ccgcaggggc tgaaggtgaa gcaggtggag cgggaggatg ccggcgtgta cgtgtgcaag	300
gccaccaacg gcttcggcag ccttagcgtc aactacaccc tcgtcgtgct ggatgacatt	360
agcccaggga aggagagcct ggggcccagc agctcctctg ggggtcaaga ggaccccgcc	420
agccagcagt gggcacgacc gcgcttcaca cagccctcca agatgaggcg ccgggtgatc	480
gcacggcccg tgggtagctc cgtgcggctc aagtgcgtgg ccagcgggca ccctcggccc	540
gacatcacgt ggatgaagga cgaccaggcc ttgacgcgcc cagaggccgc tgagcccagg	600
aagaagaagt ggacactgag cctgaagaac ctgcggccgg aggacagcg caaatacacc	660
tgccgcgtgt cgaaccgcgc gggcgccatc aacgccacct acaaggtgga tgtgatcc	718

<210> 51
 <211> 239
 <212> PRT
 <213> Human

<400> 51	
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Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala	
20 25 30	
Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg	
35 40 45	
Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr	
50 55 60	
Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu	
65 70 75 80	
Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val	

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Tyr	Val	Cys	Lys	85	Ala	Thr	Asn	Gly	Phe	90	Gly	Ser	Leu	Ser	Val	95	Asn	Tyr
Thr	Leu	Val	100	Val	Leu	Asp	Asp	Ile	105	Ser	Pro	Gly	Lys	Glu	110	Ser	Leu	Gly
Pro	Asp	115	Ser	Ser	Gly	Gly	120	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp		
Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile			
145	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly		
				165	Asp	Ile	Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	Thr		
His	Pro	Arg	Pro	180	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	
Arg	Pro	Glu	195	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu		
Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser			
210	Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile			
225						230					235							

<210> 52
 <211> 787
 <212> DNA
 <213> Human

<400> 52

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gcccggctgg	gccgcactgt	gcggctgcag	tgcccagtg	agggggaccc	gccgccgctg	180
accatgtgga	ccaaggatgg	ccgcaccatc	cacagcggct	ggagccgctt	ccgcgtgctg	240
ccgcaggggc	tgaaggtgaa	gcaggtggag	cgggaggatg	ccggcgtgta	cgtgtgcaag	300
gccaccaacg	gcttcggcag	ccttagcgtc	aactacaccc	tcgtcgtgct	ggatgacatt	360
agcccaggga	aggagagcct	ggggcccagc	agctcctctg	ggggtcaaga	ggaccccgcc	420
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ccggtgatcc	agtggctgaa	gcgcgtggag	tacggcgccg	agggccgcca	caactccacc	600
atcgatgtgg	gcggccagaa	gtttgtggtg	ctgccacagg	gtgacgtgtg	gtcgcggccc	660
gacggctcct	acctcaataa	gctgctcatc	accgtgccc	gccaggacga	tgcgggcatg	720
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ctgccag						787

<210> 53
 <211> 262
 <212> PRT
 <213> Human

<400> 53

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu			
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Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala			
			20					25					30					
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg			
		35					40					45						
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr			
		50				55					60							
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu			
65					70				75						80			
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val			
				85					90					95				
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr			
			100					105					110					
Thr	Leu	Val	Val	Leu	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Leu	Gly			
		115					120					125						

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Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp
 130 135 140
 Glu Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val Asn
 145 150 155 160
 Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val Arg
 165 170 175
 Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr Gly
 180 185 190
 Ala Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys Phe
 195 200 205
 Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser Tyr
 210 215 220
 Leu Asn Lys Leu Leu Ile Thr Arg Ala Arg Gln Asp Asp Ala Gly Met
 225 230 235 240
 Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser Ala
 245 250 255
 Phe Leu Thr Val Leu Pro
 260

<210> 54
 <211> 991
 <212> DNA
 <213> Human

<400> 54
 atgacgccga gccccctggt gctgctcctg ctgccgccgc tgctgctggg ggccttccca 60
 ccggccgccg ccgcccagagg ccccccaaag atggcggaca aggtggtccc acggcaggtg 120
 gcccggtctg gccgcactgt gcggtctgag tgcccagtg agggggaccc gccgccgctg 180
 accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgcgtgctg 240
 ccgcaggggc tgaagggtgaa gcagggtggag cgggaggatg ccggcgtgta cgtgtgcaag 300
 gccaccaacg gcttcggcag ccttagcgtc aactacacc tcgtcgtgct ggcacgaccg 360
 cgcttcacac agccctccaa gatgaggcgc cgggtgatcg cacggcccgt gggtagctcc 420
 gtgcggtca agtgcgtggc cagcgggcac cctcggccc acatcacgtg gatgaaggac 480
 gaccaggcct tgacgcgccc agaggccgct gagcccagga agaagaagtg gacactgagc 540
 ctgaagaacc tgcggccgga ggacagcggc aaatacacct gccgcgtgtc gaaccgcgcg 600
 ggcgccatca acgccaccta caagggtgat gtgatccagc ggacccttc caagcccgtg 660
 ctacacaggca cgcaccccgt gaacacgacg gtggacttcg gggggaccac gtccttccag 720
 tgcaagggtgc gcagcgacgt gaagccggtg atccagtggc tgaagcgcgt ggagtacggc 780
 gccgagggcc gccacaactc caccatcgat gtgggcggcc agaagtttgt ggtgctgccc 840
 acgggtgacg tgtggtcgcg gcccgacggc tcctacctca ataagctgct catcaccgt 900
 gcccgccagg acgatgcggg catgtacatc tgccttggcg ccaacaccat gggctacagc 960
 ttccgcagcg ccttcctcac cgtgctgcca g 991

<210> 55
 <211> 330
 <212> PRT
 <213> Human

<400> 55
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
 1 5 10 15
 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
 20 25 30
 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80
 Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
 85 90 95
 Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
 100 105 110

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Thr	Leu	Val	Val	Leu	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met
	115						120					125			
Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys
	130					135					140				
Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro	Asp	Ile	Thr	Trp	Met	Lys	Asp
145				150					155					160	
Asp	Gln	Ala	Leu	Thr	Arg	Pro	Glu	Ala	Ala	Glu	Pro	Arg	Lys	Lys	Lys
			165					170					175		
Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Arg	Pro	Glu	Asp	Ser	Gly	Lys	Tyr
		180						185					190		
Thr	Cys	Arg	Val	Ser	Asn	Arg	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys
	195						200					205			
Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr
	210					215					220				
His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln
225				230					235						240
Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg
			245					250					255		
Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly
			260					265					270		
Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro
	275						280					285			
Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln	Asp
	290					295					300				
Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser
305					310					315					320
Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro						
				325					330						

<210> 56
 <211> 799
 <212> DNA
 <213> Human

<400> 56

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tcctctgggg	gtcaagagga	ccccgccagc	cagcagtggg	cacgaccgcg	cttcacacag	180
ccctccaaga	tgaggcgccg	ggtgatcgca	cggcccgtgg	gtagctccgt	gcggctcaag	240
tgcgtggcca	gcgggcaccc	tcggcccagc	atcacgtgga	tgaaggacga	ccaggccttg	300
acgcgcccag	aggccgctga	gcccaggaag	aagaagtgga	cactgagcct	gaagaacctg	360
cggccggagg	acagcggcaa	atacacctgc	cgctgttcga	accgcgcggg	cgccatcaac	420
gccacctaca	aggtggatgt	gatccagcgg	acccgttcca	agcccgtgct	cacaggcacg	480
caccccgtga	acacgacggt	ggacttcggg	gggaccacgt	ccttccagtg	caaggtgcgc	540
agcgacgtga	agccggtgat	ccagtggctg	aagcgcgtgg	agtacggcgc	cgagggccgc	600
cacaactcca	ccatcgatgt	gggcggccag	aagtttgtgg	tgctgcccac	gggtgacgtg	660
tggtcgcggc	ccgacggctc	ctacctcaat	aagctgctca	tcacccgtgc	ccgccaggac	720
gatgcgggca	tgtacatctg	ccttggcgcc	aacaccatgg	gctacagctt	ccgcagcgcc	780
ttcctcaccg	tgctgccag					799

<210> 57
 <211> 266
 <212> PRT
 <213> Human

<400> 57

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
1				5				10				15		
Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Asp	Asp	Ile	Ser	Gly
			20				25					30		
Lys	Glu	Ser	Leu	Gly	Pro	Asp	Ser	Ser	Ser	Gly	Gly	Gln	Glu	Asp
		35				40					45			Pro
Ala	Ser	Gln	Gln	Trp	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys
														Met

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50	55	60
Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys		
65	70	75
Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp		
85	90	95
Asp Gln Ala Leu Thr Arg Pro Glu Ala Glu Pro Arg Lys Lys Lys		
100	105	110
Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr		
115	120	125
Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys		
130	135	140
Val Asp Val Ile Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr		
145	150	155
His Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln		
165	170	175
Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg		
180	185	190
Val Glu Tyr Gly Ala Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly		
195	200	205
Gly Gln Lys Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro		
210	215	220
Asp Gly Ser Tyr Leu Asn Lys Leu Leu Ile Thr Arg Ala Arg Gln Asp		
225	230	235
Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser		
245	250	255
Phe Arg Ser Ala Phe Leu Thr Val Leu Pro		
260	265	

<210> 58
 <211> 433
 <212> DNA
 <213> Human

<400> 58	
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gcccggctgg gccgcactgt gcggctgcag tgcccagtgagg ggggggaccc gccgccgctg	180
accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgcgtgctg	240
ccgcaggggc tgaagggtgaa gcaggtggag cgggaggatg ccggcgtgta cgtgtgcaag	300
gccaccaacg gcttcggcag ccttagcgtc aactacaccc tcgtcgtgct ggatgacatt	360
agcccaggggaggagagcct ggggcccgcac agctcctctg ggggtcaaga ggaccccgcc	420
agccagcagt ggg	433

<210> 59
 <211> 144
 <212> PRT
 <213> Human

<400> 59
Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
1 5 10 15
Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
20 25 30
Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
35 40 45
Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
50 55 60
Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
65 70 75 80
Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
85 90 95
Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
100 105 110

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Thr Leu Val Val Leu Asp Asp Ile Ser Pro Gly Lys Glu Ser Leu Gly
 115 120 125
 Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp
 130 135 140

<210> 60
 <211> 637
 <212> DNA
 <213> Human

<400> 60
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 ccggccgccg ccgcccagag ccccccaaag atggcggaca aggtggtccc acggcaggtg 120
 gcccggtgg gccgcactgt gcggctgcag tgcccagtg agggggaccc gccgccgctg 180
 accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgcgtgctg 240
 ccgcaggggc tgaaggtgaa gcaggtggag cgggaggatg ccggcgtgta cgtgtgcaag 300
 gccaccaacg gcttcggcag ccttagcgtc aactacaccc tcgtcgtgct ggcacgaccg 360
 cgcttcacac agccctccaa gatgaggcgc cgggtgatcg cacggcccgt gggtagctcc 420
 gtgcggctca agtgcgtggc cagcgggcac cctcggcccg acatcacgtg gatgaaggac 480
 gaccaggcct tgacgcgccc agaggccgct gagcccagga agaagaagtg gacactgagc 540
 ctgaagaacc tgcggccgga ggacagcggc aaatacacct gccgcgtgtc gaaccgcgcg 600
 ggcgccatca acgccaccta caaggtggat gtgatcc 637

<210> 61
 <211> 212
 <212> PRT
 <213> Human

<400> 61
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
 1 5 10 15
 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
 20 25 30
 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80
 Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
 85 90 95
 Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
 100 105 110
 Thr Leu Val Val Leu Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met
 115 120 125
 Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys
 130 135 140
 Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp
 145 150 155 160
 Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys
 165 170 175
 Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr
 180 185 190
 Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys
 195 200 205
 Val Asp Val Ile
 210

<210> 62
 <211> 706
 <212> DNA
 <213> Human

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<400> 62

atgacgccga	gccccctgtt	gctgctcctg	ctgccgccgc	tgctgctggg	ggccttccca	60
ccggccgccg	ccgcccagagg	ccccccaaag	atggcgagaca	aggtgggtccc	acggcaggtg	120
gcccggctgg	gccgcactgt	gcggctgcag	tgcccagtg	agggggaccc	gccgccgctg	180
accatgtgga	ccaaggatgg	ccgcaccatc	cacagcggct	ggagccgctt	ccgcgtgctg	240
ccgcaggggc	tgaaggatga	gcaggtggag	cgggaggatg	ccggcgtgta	cgtgtgcaag	300
gccaccaacg	gcttcggcag	ccttagcgtc	aactacaccc	tcgtcgtgct	ggagcggacc	360
cgttccaagc	ccgtgctcac	aggcacgcac	cccgtgaaca	cgacgggtgga	cttcgggggg	420
accacgtcct	tccagtgcaa	ggtgcgcagc	gacgtgaagc	cggatgatcca	gtggctgaag	480
cgcgtggagt	acggcgccga	gggccgccac	aactccacca	tcgatgtggg	cggccagaag	540
tttgtggtgc	tgcccacggg	tgacgtgtgg	tcgcggcccg	acggctccta	cctcaataag	600
ctgctcatca	cccgtgcccg	ccaggacgat	gcgggcatgt	acatctgcct	tggcgccaac	660
accatgggct	acagcttccc	cagcgccttc	ctcaccgtgc	tgccag		706

<210> 63

<211> 235

<212> PRT

<213> Human

<400> 63

Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
1				5					10				15		
Gly	Ala	Phe	Pro	Pro	Ala	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Lys	Met	Ala
			20					25					30		
Asp	Lys	Val	Val	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg
		35				40						45			
Leu	Gln	Cys	Pro	Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr
	50					55					60				
Lys	Asp	Gly	Arg	Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu
65					70				75						80
Pro	Gln	Gly	Leu	Lys	Val	Lys	Gln	Val	Glu	Arg	Glu	Asp	Ala	Gly	Val
				85					90					95	
Tyr	Val	Cys	Lys	Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr
			100					105					110		
Thr	Leu	Val	Val	Leu	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly
		115					120					125			
Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe
	130					135					140				
Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys
145					150				155						160
Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val
				165					170					175	
Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg
			180					185					190		
Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Thr	Arg	Ala	Arg	Gln
		195					200					205			
Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr
	210					215					220				
Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro					
225					230					235					

<210> 64

<211> 445

<212> DNA

<213> Human

<400> 64

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ccggccgccg	ccgcccagaga	tgacattagc	ccagggaagg	agagcctggg	gcccagacagc	120
tcctctgggg	gtcaagagga	ccccgccagc	cagcagtggg	cacgaccgcg	cttcacacag	180
ccctccaaga	tgaggcgccg	ggtgatcgca	cggcccgtgg	gtagctccgt	gcggctcaag	240
tgcggtggcca	gcgggcaccc	tcggcccagc	atcacgtgga	tgaaggacga	ccaggccttg	300
acgcgcccag	aggccgctga	gcccaggaag	aagaagtgga	cactgagcct	gaagaacctg	360

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cggccggagg acagcggcaa atacacctgc cgcgtgtcga accgcgcggg cgccatcaac 420
gccacctaca aggtggatgt gatcc 445

<210> 65
<211> 148
<212> PRT
<213> Human

<400> 65
Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
1 5 10 15
Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
20 25 30
Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro
35 40 45
Ala Ser Gln Gln Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met
50 55 60
Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys
65 70 75 80
Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp
85 90 95
Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys
100 105 110
Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr
115 120 125
Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys
130 135 140
Val Asp Val Ile
145

<210> 66
<211> 514
<212> DNA
<213> Human

<400> 66
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ccggccgccg ccgcccgaga tgacattagc ccagggaagg agagcctggg gcccgacagc 120
tcctctgggg gtcaagagga ccccgccagc cagcagtggg agcggacccg ttccaagccc 180
gtgctcacag gcacgcaccc cgtgaacacg acggtggact tcggggggac cacgtccttc 240
cagtgcaggg tgcgcagcga cgtgaagccg gtgatccagt ggctgaagcg cgtggagtac 300
ggcgccgagg gccgccacaa ctccaccatc gatgtgggcg gccagaagtt tgtggtgctg 360
cccacgggtg acgtgtggtc gcggcccgac ggctcctacc tcaataagct gctcatcacc 420
cgtgcccgcc aggacgatgc gggcatgtac atctgccttg gcgccaacac catgggctac 480
agcttccgca gcgccttcct caccgtgctg ccag 514

<210> 67
<211> 171
<212> PRT
<213> Human

<400> 67
Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
1 5 10 15
Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
20 25 30
Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro
35 40 45
Ala Ser Gln Gln Trp Glu Arg Thr Arg Ser Lys Pro Val Leu Thr Gly
50 55 60
Thr His Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe
65 70 75 80
Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys

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Arg	Val	Glu	Tyr	85	Gly	Ala	Glu	Gly	Arg	90	His	Asn	Ser	Thr	Ile	95	Asp	Val
Gly	Gly	Gln	100	Lys	Phe	Val	Val	Leu	105	Pro	Thr	Gly	Asp	Val	110	Trp	Ser	Arg
Pro	Asp	115	Gly	Ser	Tyr	Leu	Asn	Lys	120	Leu	Leu	Ile	Thr	Arg	125	Ala	Arg	Gln
Asp	Asp	130	Ala	Gly	Met	Tyr	Ile	Cys	135	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	160
145	Ser	Phe	Arg	Ser	Ala	150	Phe	Leu	Thr	Val	155	Leu	Pro					
				165							170							

<210> 68
 <211> 718
 <212> DNA
 <213> Human

<400> 68	atgacgccga	gccccctggt	gctgctcctg	ctgccgccgc	tgctgctggg	ggccttccca	60
	ccggccgccg	ccgcccagagc	acgaccgcgc	ttcacacagc	cctccaagat	gaggcgccgg	120
	gtgatcgcac	ggcccgtggg	tagctccgtg	cggctcaagt	gcgtggccag	cgggcaccct	180
	cggcccgaca	tcacgtggat	gaaggacgac	caggccttga	cgcgcccaga	ggccgctgag	240
	cccaggaaga	agaagtggac	actgagcctg	aagaacctgc	ggccggagga	cagcggcaaa	300
	tacacctgcc	gcgtgtcgaa	ccgcgcgggc	gccatcaacg	ccacctacaa	ggtggatgtg	360
	atccagcgga	cccgtttcaa	gcccgtgctc	acaggcacgc	accccgtgaa	cacgacgggtg	420
	gacttcgggg	ggaccacgtc	cttccagtgc	aagggtgcga	gcgacgtgaa	gccgggtgatc	480
	cagtggctga	agcgcgtgga	gtacggcgcc	gagggccgcc	acaactccac	catcgatgtg	540
	ggcggccaga	agtttgtggt	gctgcccacg	ggtgacgtgt	ggtcgcggcc	cgacggctcc	600
	tacctcaata	agctgctcat	caccctgccc	cgccaggacg	atgcgggcat	gtacatctgc	660
	cttggcgcca	acaccatggg	ctacagcttc	cgcagcgcct	tcctcaccgt	gctgccag	718

<210> 69
 <211> 239
 <212> PRT
 <213> Human

<400> 69	Met	Thr	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Pro	Leu	Leu	Leu
1	Gly	Ala	Phe	Pro	5	Ala	Ala	Ala	Ala	10	Arg	Ala	Arg	Pro	Arg	Thr
	Gln	Pro	20	Lys	Met	Arg	Arg	Arg	Val	25	Ile	Ala	Arg	Pro	Val	Gly
	Ser	Val	35	Arg	Leu	Lys	Cys	Val	Ala	40	Ser	Gly	His	Pro	Arg	Pro
	Thr	Trp	Met	Lys	Asp	Asp	Gln	Ala	Leu	55	Thr	Arg	Pro	Glu	Ala	Ala
65	Pro	Arg	Lys	Lys	70	Trp	Thr	Leu	Ser	75	Leu	Lys	Asn	Leu	Arg	Pro
	Asp	Ser	Gly	85	Tyr	Thr	Cys	Arg	Val	90	Ser	Asn	Arg	Ala	Gly	Ala
	Asn	Ala	Thr	100	Lys	Val	Asp	Val	Ile	105	Gln	Arg	Thr	Arg	Ser	Lys
	Val	Leu	Thr	115	Gly	Thr	His	Pro	Val	120	Asn	Thr	Thr	Val	Asp	Phe
	Thr	Thr	Ser	130	Phe	Gln	Cys	Lys	Val	135	Arg	Ser	Asp	Val	Lys	Pro
145	Gln	Trp	Leu	165	Arg	Val	Glu	Tyr	Gly	170	Ala	Glu	Gly	Arg	His	Asn
	Thr	Ile	Asp	180	Gly	Gly	Gln	Lys	Phe	185	Val	Val	Leu	Pro	Thr	Gly
	Val	Trp	Ser	195	Arg	Pro	Asp	Gly	Ser	200	Tyr	Leu	Asn	Lys	Leu	Ile
																Thr

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Arg Ala Arg Gln Asp Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala Asn
 210 215 220
 Thr Met Gly Tyr Ser Phe Arg Ser Ala Phe Leu Thr Val Leu Pro
 225 230 235

<210> 70
 <211> 352
 <212> DNA
 <213> Human

<400> 70
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 gcccggtctg gccgcactgt gcggctgcag tgcccagtgg agggggaccc gccgccgctg 180
 accatgtgga ccaaggatgg ccgcaccatc cacagcggct ggagccgctt ccgcgtgctg 240
 ccgcagggggc tgaaggatgaa gcaggtggag cgggaggatg ccggcgtgta cgtgtgcaag 300
 gccaccaacg gcttcggcag ccttagcgtc aactacaccc tcgtcgtgct gg 352

<210> 71
 <211> 117
 <212> PRT
 <213> Human

<400> 71
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala
 20 25 30
 Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg
 35 40 45
 Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr
 50 55 60
 Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu
 65 70 75 80
 Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp Ala Gly Val
 85 90 95
 Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr
 100 105 110
 Thr Leu Val Val Leu
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<210> 72
 <211> 160
 <212> DNA
 <213> Human

<400> 72
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 tcctctgggg gtcaagagga ccccgccagc cagcagtggg 160

<210> 73
 <211> 53
 <212> PRT
 <213> Human

<400> 73
 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
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 Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Asp Asp Ile Ser Pro Gly
 20 25 30
 Lys Glu Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro
 35 40 45

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Ala Ser Gln Gln Trp
50

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<211> 364
<212> DNA
<213> Human

<400> 74
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gtgatcgcac ggcccgtggg tagctccgtg cggctcaagt gcgtggccag cgggcaccct 180
cggcccgcgc tcacgtggat gaaggacgac caggccttga cgcgccaga ggcgctgag 240
cccaggaaga agaagtggac actgagcctg aagaacctgc ggccggagga cagcggcaaa 300
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atcc 364

<210> 75
<211> 121
<212> PRT
<213> Human

<400> 75
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20 25 30
Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser
35 40 45
Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile
50 55 60
Thr Trp Met Lys Asp Asp Gln Ala Leu Thr Arg Pro Glu Ala Ala Glu
65 70 75 80
Pro Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn Leu Arg Pro Glu
85 90 95
Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn Arg Ala Gly Ala Ile
100 105 110
Asn Ala Thr Tyr Lys Val Asp Val Ile
115 120

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<211> 433
<212> DNA
<213> Human

<400> 76
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gtgaacacga cgggtggactt cgggggggacc acgtccttcc agtgcaaggt gcgcagcgac 180
gtgaagcccg tgatccagt gctgaagcgc gtggagtacg gcgccgaggg ccgccacaac 240
tccaccatcg atgtgggcgg ccagaagttt gtggtgctgc ccacgggtga cgtgtggtcg 300
cggcccgcgc gctcctacct caataagctg ctcacacccc gtgcccgcga ggacgatgcg 360
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accgtgctgc cag 433

<210> 77
<211> 144
<212> PRT
<213> Human

<400> 77
Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu
1 5 10 15

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			20					25					30		
Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly
		35					40					45			
Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val
	50					55					60				
Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ala	Glu	Gly	Arg	His	Asn
65					70					75					80
Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly
			85						90					95	
Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile
			100					105					110		
Thr	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala
		115					120					125			
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 <212> DNA
 <213> Human

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<210> 79
 <211> 26
 <212> PRT
 <213> Human

<400> 79	
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Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg	
20 25	

<210> 80
 <211> 1590
 <212> DNA
 <213> Mouse

<400> 80	
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cgactgtgc ggctacagt cccagtggag ggggaccac caccgttgac catgtggacc	180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg	240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc	300
tttggcagcc tcagcgtcaa ctacactctc atcatcatgg atgatattag tccagggaag	360
gagagccctg ggccaggtgg ttcttcgggg ggccaggagg acccagccag ccagcagtgg	420
gcacggcctc gcttcacaca gccctccaag atgaggcgcc gagtgattgc acggcctgtg	480
ggtagctctg tgcggctcaa gtgtgtggcc agtgggcacc cacggccaga catcatgtgg	540
atgaaggatg accagacctt gacgcattta gaggctagt aacacagaaa gaagaagtgg	600
acactgagct tgaagaacct gaagcctgaa gacagtggca agtacacgtg ccgtgtatct	660
aacaaggccg gtgccatcaa cgccacctac aaagtggatg taatccagcg gactcgttcc	720
aagcctgtgc tcacagggac acaccctgtg aacacaacgg tggacttcgg tgggacaacg	780
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gagtacggct ccgagggacg ccacaactcc accattgatg tgggtggcca gaagtgtgtg	900
gtgttgccca cgggtgatgt gtggtcacgg cctgatggct cctacctcaa caagctgctc	960
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cctatggctt cttcatcgtc atccacaagc ctgccatggc ctgtggtgat cggcatccca	1140
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ccatgtgccc	cagcatctac	acttcctgtg	cctggggcatc	gtccccccagg	gacatcccga	1260
gaacgcagtg	gtgacaagga	cctgccctca	ttggctgtgg	gcatatgtga	ggagcatgga	1320
tccgccatgg	ccccccagca	catcctggcc	tctggctcaa	ctgctggccc	caagctgtac	1380
cccaagctat	acacagatgt	gcacacacac	acacatacac	acacctgcac	tcacacgctc	1440
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<210> 81
 <211> 529
 <212> PRT
 <213> Mouse

<400> 81

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			20					25					30		
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
		35					40					45			
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65				70					75						80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
			85						90					95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Gly	Ser
		115					120					125			
Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Ala	Arg	Pro	Arg
	130					135					140				
Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val
145					150					155					160
Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro
			165						170					175	
Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala
		180						185					190		
Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys
		195					200					205			
Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly
	210					215					220				
Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser
225					230					235					240
Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe
			245						250					255	
Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro
		260						265					270		
Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His
		275					280					285			
Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr
	290					295					300				
Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu
305					310					315					320
Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly
			325						330					335	
Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu
			340					345					350		
Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser
		355					360					365			
Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val
	370					375					380				
Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys

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385					390					395					400
Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro
				405					410					415	
Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala
			420					425					430		
Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile
		435					440					445			
Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr
	450					455					460				
Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu
465					470					475					480
Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val
			485						490					495	
Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp
			500					505					510		
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Ser															

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 <211> 1236
 <212> DNA
 <213> Mouse

<400> 82																
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cgcactgtgc	ggctacagtg	cccagtgagg	ggggaccac	caccgttgac	catgtggacc											180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccaggggtctg											240
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tcccagagaac	gcagtgggtga	caaggacctg	ccctcatttg	ctgtgggcat	atgtgaggag											960
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ctgtacccca	agctatacac	agatgtgcac	acacacacac	atacacacac	ctgcactcac											1080
acgctctcat	gtggagggca	aggttcattc	acaccagcat	gtccactatc	agtgctaaat											1140
acagcgaatc	tccaagcact	gtgtcctgag	gtaggcattt	gggggccaag	gcaacagggt											1200
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<210> 83
 <211> 411
 <212> PRT
 <213> Mouse

<400> 83																
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			20				25					30				
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro	
		35				40					45					
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg	
	50				55						60					
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu	

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65	Lys	Val	Lys	Glu	Val	70	Glu	Ala	Glu	Asp	75	Ala	Gly	Val	Tyr	Val	80	Cys	Lys
					85		Gly	Ser	Leu	Ser	90	Val	Asn	Tyr	Thr		95	Ile	Ile
	Ala	Thr	Asn	Gly	100					105							110		
	Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Gly	Gly	Ser		
			115					120											
	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Ala	Arg	Pro	Arg			
		130					135						140						
	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val			
		145				150					155					160			
	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro			
				165						170					175				
	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala			
			180						185					190					
	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys			
			195					200					205						
	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly			
		210					215						220						
	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	His	Pro	Lys	Pro	Pro			
		225				230					235					240			
	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro			
				245					250					255					
	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val			
			260						265					270					
	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser			
			275					280					285						
	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg			
		290					295						300						
	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	Glu			
		305				310					315					320			
	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr			
				325						330				335					
	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His			
				340					345					350					
	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly			
			355					360					365						
	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu			
		370					375					380							
	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val			
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	Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg	Val	Ser								
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<210> 84
 <211> 1305
 <212> DNA
 <213> Mouse

<400> 84																			
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cgcactgtgc	ggctacagtg	cccagtgagg	ggggaccac	caccgttgac	catgtggacc														180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccagggtctg														240
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ctcaacaagc	tgctcatctc	tcgggcccgc	caggatgatg	ctggcatgta	catctgccta														720
ggtgcaaata	ccatgggcta	cagtttccgt	agcgccttcc	tcactgtatt	accagacccc														780

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cagaccaaga	agaagccatg	tgccccagca	tctacacttc	ctgtgcctgg	gcatcgtccc	960
ccagggacat	cccagagaacg	cagtgggtgac	aaggacctgc	cctcattggc	tgtgggcata	1020
tgtgaggagc	atggatccgc	catggccccc	cagcacatcc	tggcctctgg	ctcaactgct	1080
ggccccaagc	tgtaccccaa	gctatacaca	gatgtgcaca	cacacacaca	tacacacacc	1140
tgcactcaca	cgctctcatg	tggagggcaa	ggttcatcaa	caccagcatg	tccactatca	1200
gtgctaaata	cagcgaatct	ccaagcactg	tgtcctgagg	taggcatttg	ggggccaagg	1260
caacaggttg	ggagaattga	gaacaatgga	ggaagagtat	cttag		1305

<210> 85
 <211> 434
 <212> PRT
 <213> Mouse

<400> 85

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val
			20					25					30	
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys
		35					40					45		
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly
	50					55					60			
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly
65				70					75					80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys
			85					90						95
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile
			100					105					110	
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Gly
		115					120					125		
Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Glu	Arg	Thr
	130					135					140			
Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val
145					150				155					160
Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val
			165					170						175
Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly
		180						185					190	
His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu
		195					200					205		
Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys
	210					215					220			
Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys
225					230					235				240
Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr
			245					250						255
Leu	Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser
			260					265					270	
Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly
		275					280					285		
Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys
	290					295					300			
Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg
305					310					315				320
Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser
			325						330					335
Ala	Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln
			340					345					350	
Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys
	355						360					365		
Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His

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370 375 380
 Leu Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro Ala Cys Pro Leu Ser
 385 390 395 400
 Val Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys Pro Glu Val Gly Ile
 405 410 415
 Trp Gly Pro Arg Gln Gln Val Gly Arg Ile Glu Asn Asn Gly Gly Arg
 420 425 430
 Val Ser

<210> 86
 <211> 1509
 <212> DNA
 <213> Mouse

<400> 86
 atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
 gcgcgaggac ccccaagaat ggcagacaaa gtggtccac ggcagggtggc ccgcctgggc 120
 cgcactgtgc ggctacagt cccagtggag ggggaccac caccgttgac catgtggacc 180
 aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
 aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
 tttggcagcc tcagcgtcaa ctacactctc atcatcatgg caccgcctcg cttcacacag 360
 ccctccaaga tgaggcgccg agtgattgca cggcctgtgg gtagctctgt gcggctcaag 420
 tgtgtggcca gtgggcaccc acggccagac atcatgtgga tgaaggatga ccagacctg 480
 acgcatctag aggctagtga acacagaaag aagaagtgga cactgagctt gaagaacctg 540
 aagcctgaag acagtggcaa gtacacgtgc cgtgtatcta acaaggccgg tgccatcaac 600
 gccacctaca aagtggatgt aatccagcgg actcgttcca agcctgtgct cacagggaca 660
 caccctgtga acacaacggt ggacttcggt gggacaacgt ccttccagt caaggtgctg 720
 agtgacgtga agcctgtgat ccagtggctg aagcgggtgg agtacggctc cgagggacgc 780
 cacaactcca ccattgatgt ggggtggccag aagtttgtgg tgttgcccac ggggtgatgtg 840
 tggtcacggc ctgatggctc ctacctcaac aagctgctca tctctcgggc ccgccaggat 900
 gatgctggca tgtacatctg cctaggtgca aataccatgg gctacagttt ccgtagcgcc 960
 ttcctcactg tattaccaga ccccaaacct ccagggcctc ctatggcttc ttcatcgtca 1020
 tccacaagcc tgccatggcc tgtggtgatc ggcaccccag ctggtgctgt cttcatccta 1080
 ggcactgtgc tgctctggct ttgccagacc aagaagaagc catgtgcccc agcatctaca 1140
 cttcctgtgc ctgggcatcg tccccaggg acatcccag aacgcagtgg tgacaaggac 1200
 ctgccctcat tggctgtggg catatgtgag gagcatggat ccgccatggc cccccagcac 1260
 atcctggcct ctggctcaac tgctggcccc aagctgtacc ccaagctata cacagatgtg 1320
 cacacacaca cacatacaca cacctgcact cacacgtct catgtggagg gcaaggttca 1380
 tcaacaccag catgtccact atcagtgtca aatacagcga atctccaagc actgtgtcct 1440
 gaggtaggca tttggggggc aaggcaacag gttgggagaa ttgagaacaa tggaggaaga 1500
 gtatcttag 1509

<210> 87
 <211> 502
 <212> PRT
 <213> Mouse

<400> 87
 Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Gly Ala Leu Pro
 1 5 10 15
 Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
 20 25 30
 Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
 35 40 45
 Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
 50 55 60
 Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
 65 70 75 80
 Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
 85 90 95
 Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
 100 105 110

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Met	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val
		115					120					125			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser
	130					135					140				
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu
145					150					155					160
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser
				165					170					175	
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val
			180					185					190		
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile
		195					200					205			
Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn
	210					215					220				
Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg
225					230					235					240
Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly
				245					250					255	
Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe
			260					265					270		
Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr
		275					280					285			
Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met
	290					295					300				
Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala
305					310					315					320
Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala
				325					330					335	
Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile
			340					345					350		
Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys
		355					360					365			
Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro
	370					375					380				
Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp
385					390					395					400
Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met
				405					410					415	
Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu
			420					425					430		
Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr
		435					440				445				
Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala
	450					455					460				
Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro
465					470					475					480
Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn
				485					490					495	
Asn	Gly	Gly	Arg	Val	Ser										
			500												

<210> 88
 <211> 1317
 <212> DNA
 <213> Mouse

<400> 88					
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gcgcgagatg	atattagtcc	agggaaggag	agccctgggc	caggtggttc	ttcggggggc
caggaggacc	cagccagcca	gcagtgggca	cgccctcgct	tcacacagcc	ctccaagatg
aggcgccgag	tgattgcacg	gcctgtgggt	agctctgtgc	ggctcaagtg	tgtggccagt
gggcacccac	ggccagacat	catgtggatg	aaggatgacc	agaccttgac	gcatttagag
gctagtgaac	acagaaagaa	gaagtggaca	ctgagcttga	agaacctgaa	gcctgaagac
					60
					120
					180
					240
					300
					360

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agtggcaagt	acacgtgccg	tgtatctaac	aaggccggtg	ccatcaacgc	cacctacaaa	420
gtggatgtaa	tccagcggac	tcgttccaag	cctgtgctca	cagggacaca	ccctgtgaac	480
acaacggtgg	acttcggtgg	gacaacgtcc	ttccagtgc	aggtgcgag	tgacgtgaag	540
cctgtgatcc	agtggctgaa	gcgggtggag	tacggctccg	agggacgcca	caactccacc	600
attgatgtgg	gtggccagaa	gtttgtgggtg	ttgcccacgg	gtgatgtgtg	gtcacggcct	660
gatggctcct	acctcaacaa	gctgctcatc	tctcgggccc	gccaggatga	tgctggcatg	720
tacatctgcc	taggtgcaaa	taccatgggc	tacagtttcc	gtagcgcctt	cctcactgta	780
ttaccagacc	ccaaacctcc	agggcctcct	atggcttctt	catcgtcatc	cacaagcctg	840
ccatggcctg	tggtgatcgg	catcccagct	ggtgctgtct	tcctcctagg	cactgtgctg	900
ctctggcttt	gccagaccaa	gaagaagcca	tgtgccccag	catctacact	tcctgtgcct	960
gggcatcgtc	ccccagggac	atcccagagaa	cgcagtgggtg	acaaggacct	gccctcattg	1020
gctgtgggca	tatgtgagga	gcatggatcc	gccatggccc	cccagcacat	cctggcctct	1080
ggctcaactg	ctggcccca	gctgtacccc	aagctataca	cagatgtgca	cacacacaca	1140
catacacaca	cctgcactca	cacgctctca	tgtggagggc	aaggttcatc	aacaccagca	1200
tgtccactat	cagtgtctaa	tacagcgaat	ctccaagcac	tgtgtcctga	ggtaggcatt	1260
tgggggcca	ggcaacaggt	tgggagaatt	gagaacaatg	gaggaagagt	atcttag	1317

<210> 89

<211> 438

<212> PRT

<213> Mouse

<400> 89

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser
			20					25					30	Pro
Gly	Pro	Gly	Gly	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln
		35				40						45		Gln
Trp	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Val
	50					55					60			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala
65					70					75				80
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr
				85					90					95
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu
			100					105					110	Ser
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg
		115				120					125			Val
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val
	130					135					140			Ile
Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val
145					150					155				160
Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val
			165						170					175
Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr
			180					185					190	Gly
Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys
		195					200				205			Phe
Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser
	210				215						220			Tyr
Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly
225					230					235				Met
Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser
			245						250					255
Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met
			260					265					270	Ala
Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly
		275					280					285		Ile
Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu
	290					295					300			Cys
Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val
305					310					315				Pro

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Gly His Arg Pro Pro Gly Thr Ser Arg Glu Arg Ser Gly Asp Lys Asp
 325 330 335
 Leu Pro Ser Leu Ala Val Gly Ile Cys Glu Glu His Gly Ser Ala Met
 340 345 350
 Ala Pro Gln His Ile Leu Ala Ser Gly Ser Thr Ala Gly Pro Lys Leu
 355 360 365
 Tyr Pro Lys Leu Tyr Thr Asp Val His Thr His Thr His Thr His Thr
 370 375 380
 Cys Thr His Thr Leu Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro Ala
 385 390 395 400
 Cys Pro Leu Ser Val Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys Pro
 405 410 415
 Glu Val Gly Ile Trp Gly Pro Arg Gln Gln Val Gly Arg Ile Glu Asn
 420 425 430
 Asn Gly Gly Arg Val Ser
 435

<210> 90
 <211> 951
 <212> DNA
 <213> Mouse

<400> 90
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 cgactgtgc ggctacagt cccagtggag ggggaccac caccgttgac catgtggacc 180
 aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
 aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
 tttggcagcc tcagcgtcaa ctacactctc atcatcatgg atgatattag tccagggaag 360
 gagagccctg ggccagggtg ttcttcgggg ggccaggagg acccagccag ccagcagtgg 420
 gaccccaaac ctccagggcc tcctatggct tcttcatcgt catccacaag cctgccatgg 480
 cctgtggtga tcggcatccc agctggtgct gtcttcatcc taggcactgt gctgctctgg 540
 ctttgccaga ccaagaagaa gccatgtgcc ccagcatcta cacttcctgt gcctgggcat 600
 cgtccccag ggacatccc agaacgcagt ggtgacaagg acctgccctc attggctgtg 660
 ggcatatgtg aggagcatgg atccgccatg gccccccagc acatcctggc ctctggctca 720
 actgctggcc ccaagctgta cccaagcta tacacagatg tgcacacaca cacacataca 780
 cacacctgca ctcacacgct ctcatgtgga gggcaagggt catcaacacc agcatgtcca 840
 ctatcagtgc taaatacagc gaatctccaa gcactgtgtc ctgaggtagg catttggggg 900
 ccaaggcaac aggttgggag aattgagaac aatggaggaa gagtatctta g 951

<210> 91
 <211> 316
 <212> PRT
 <213> Mouse

<400> 91
 Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
 1 5 10 15
 Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
 20 25 30
 Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
 35 40 45
 Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
 50 55 60
 Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
 65 70 75 80
 Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
 85 90 95
 Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
 100 105 110
 Met Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro Gly Pro Gly Gly Ser
 115 120 125
 Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp Asp Pro Lys Pro

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130	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp
145	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr
	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala
	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu
	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu
	Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser
	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr
	His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln
	Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn
	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln
	Val	Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg	Val	Ser				

<210> 92
 <211> 1155
 <212> DNA
 <213> Mouse

<400> 92	atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg	60
	gcgcgaggac	ccccagaat	ggcagacaaa	gtggtcccac	ggcagggtggc	ccgcctgggc	120
	cgcactgtgc	ggctacagtg	cccagtgag	ggggaccac	caccgttgac	catgtggacc	180
	aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccagggtctg	240
	aagggtgaagg	aggtggaggc	cgaggatgcc	ggtgtttatg	tgtgcaaggc	caccaatggc	300
	tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	cacggcctcg	cttcacacag	360
	ccctccaaga	tgaggcgccg	agtgattgca	cggcctgtgg	gtagctctgt	gcggctcaag	420
	tgtgtggcca	gtgggcaccc	acggccagac	atcatgtgga	tgaaggatga	ccagaccttg	480
	acgcatctag	aggctagtga	acacagaaag	aagaagtgga	cactgagctt	gaagaacctg	540
	aagcctgaag	acagtggcaa	gtacacgtgc	cgtgtatcta	acaaggccgg	tgccatcaac	600
	gccacctaca	aagtggatgt	aatccacccc	aaacctccag	ggcctcctat	ggcttcttca	660
	tcgtcatcca	caagcctgcc	atggcctgtg	gtgatcggca	tccagctgg	tgctgtcttc	720
	atcctaggca	ctgtgctgct	ctggctttgc	cagaccaaga	agaagccatg	tgccccagca	780
	tctacacttc	ctgtgcctgg	gcatcgtccc	ccaggacat	cccagaaacg	cagtgggtgac	840
	aaggacctgc	cctcattggc	tgtgggcata	tgtgaggagc	atggatccgc	catggccccc	900
	cagcacatcc	tggcctctgg	ctcaactgct	ggccccaagc	tgtaccccaa	gctatacaca	960
	gatgtgcaca	cacacacaca	tacacacacc	tgcactcaca	cgctctcatg	tggagggcaa	1020
	ggttcatcaa	caccagcatg	tccactatca	gtgctaaata	cagcgaatct	ccaagcactg	1080
	tgtcctgagg	taggcatttg	ggggccaagg	caacaggttg	ggagaattga	gaacaatgga	1140
	ggaagagtat	cttag					1155

<210> 93
 <211> 384
 <212> PRT
 <213> Mouse

<400> 93	Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro	
	1				5				10					15		
	Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
				20				25						30		
	Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
			35				40					45				

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Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
50						55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65					70					75					80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
			85						90					95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val
		115					120					125			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser
	130				135						140				
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu
145					150					155					160
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser
			165						170					175	
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val
			180					185					190		
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile
		195					200					205			
His	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser	Thr
	210					215					220				
Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe
225					230					235					240
Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys	Pro
			245						250					255	
Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro	Gly
			260					265					270		
Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Val
		275					280					285			
Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile	Leu
	290					295					300				
Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr
305					310					315					320
Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu	Ser
			325						330					335	
Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val	Leu
			340					345					350		
Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp	Gly
		355					360					365			
Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg	Val	Ser
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<210> 94
 <211> 1224
 <212> DNA
 <213> Mouse

<400> 94					
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					120
cgactgtgc	ggctacagtg	cccagtgagg	ggggacccac	caccgttgac	catgtggacc
					180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccagggctctg
					240
aaggtgaagg	aggtggaggc	cgaggatgcc	ggtgttttatg	tgtgcaaggc	caccaatggc
					300
tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	agcggactcg	ttccaagcct
					360
gtgctcacag	ggacacaccc	tgtgaacaca	acggtggact	tcggtgggac	aacgtccttc
					420
cagtgcgaagg	tgcgcagtg	cgtgaagcct	gtgatccagt	ggctgaagcg	ggtggagtac
					480
ggctccgagg	gacgccacaa	ctccaccatt	gatgtgggtg	gccagaagtt	tgtgggtgtg
					540
cccacgggtg	atgtgtggtc	acggcctgat	ggctcctacc	tcaacaagct	gctcatctct
					600
cgggcccgcc	aggatgatgc	tggcatgtac	atctgcctag	gtgcaaatac	catgggctac
					660
agtttccgta	gcgccttctc	cactgtatta	ccagacccca	aacctccagg	gcctcctatg
					720
gcttcttcat	cgatcatccac	aagcctgcca	tggcctgtgg	tgatcggcac	cccagctggt
					780
gctgtcttca	tcctaggcac	tgtgctgctc	tggctttgcc	agaccaagaa	gaagccatgt
					840

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agtgggtgaca	aggacctgcc	ctcattggct	gtggggcatat	gtgaggagca	tggatccgcc	960
atggccccc	agcacatcct	ggcctctggc	tcaactgctg	gccccaaagct	gtaccccaag	1020
ctatacacag	atgtgcacac	acacacacat	acacacacct	gcactcacac	gctctcatgt	1080
ggagggcaag	gttcatcaac	accagcatgt	ccactatcag	tgctaaatac	agcgaatctc	1140
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aacaatggag	gaagagtatc	ttag				1224

<210> 95
 <211> 407
 <212> PRT
 <213> Mouse

<400> 95

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
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Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
			20				25						30		
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
		35					40					45			
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65				70					75						80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
				85					90					95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val
		115					120					125			
Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val
	130					135					140				
Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr
145					150					155					160
Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys
				165					170					175	
Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser
			180					185					190		
Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly
		195					200					205			
Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser
	210					215					220				
Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met
225					230					235					240
Ala	Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly
				245					250					255	
Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu
			260					265					270		
Cys	Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val
		275					280					285			
Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys
	290					295					300				
Asp	Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala
305					310					315					320
Met	Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys
				325					330					335	
Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His
			340					345					350		
Thr	Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro
		355					360					365			
Ala	Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys
	370					375					380				
Pro	Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu

385 Asn Asn Gly Gly Arg Val Ser
405

400

<210> 96
<211> 963
<212> DNA
<213> Mouse

<400> 96
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caggaggacc cagccagcca gcagtgggca cggcctcgct tcacacagcc ctccaagatg 180
aggcgccgag tgattgcacg gcctgtgggt agctctgtgc ggctcaagtg tgtggccagt 240
gggcacccac ggccagacat catgtggatg aaggatgacc agaccttgac gcatctagag 300
gctagtgaac acagaaagaa gaagtggaca ctgagcttga agaacctgaa gcctgaagac 360
agtggcaagt acacgtgccg tgtatctaac aaggccggtg ccatcaacgc cacctacaaa 420
gtggatgtaa tccaccccaa acctccaggg cctcctatgg cttcttcatc gtcattccaca 480
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tcattggctg tgggcatatg tgaggagcat ggatccgcca tggcccccca gcacatcctg 720
gcctctggct caactgctgg ccccaagctg taccccaagc tatacacaga tgtgcacaca 780
cacacacata cacacacctg cactcacacg ctctcatgtg gagggcaagg ttcatacaaca 840
ccagcatgtc cactatcagt gctaaataca gcgaatctcc aagcactgtg tcctgaggta 900
ggcatttggg ggccaaggca acagggttggg agaattgaga acaatggagg aagagtatct 960
tag 963

<210> 97
<211> 320
<212> PRT
<213> Mouse

<400> 97
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20 25 30
Gly Pro Gly Gly Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln
35 40 45
Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met Arg Arg Arg Val
50 55 60
Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser
65 70 75 80
Gly His Pro Arg Pro Asp Ile Met Trp Met Lys Asp Asp Gln Thr Leu
85 90 95
Thr His Leu Glu Ala Ser Glu His Arg Lys Lys Lys Trp Thr Leu Ser
100 105 110
Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val
115 120 125
Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile
130 135 140
His Pro Lys Pro Pro Gly Pro Pro Met Ala Ser Ser Ser Ser Thr
145 150 155 160
Ser Leu Pro Trp Pro Val Val Ile Gly Ile Pro Ala Gly Ala Val Phe
165 170 175
Ile Leu Gly Thr Val Leu Leu Trp Leu Cys Gln Thr Lys Lys Lys Pro
180 185 190
Cys Ala Pro Ala Ser Thr Leu Pro Val Pro Gly His Arg Pro Pro Gly
195 200 205
Thr Ser Arg Glu Arg Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala Val
210 215 220
Gly Ile Cys Glu Glu His Gly Ser Ala Met Ala Pro Gln His Ile Leu

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225	Ala	Ser	Gly	Ser	Thr	230	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	240
					245						250						255	
Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu	Ser	
			260						265						270			
Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val	Leu			
		275					280					285						
Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp	Gly			
	290					295					300							
Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg	Val	Ser			
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<210> 98
 <211> 1032
 <212> DNA
 <213> Mouse

<400> 98

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caggaggacc	cagccagcca	gcagtgggag	cggactcggt	ccaagcctgt	gctcacaggg	180
acacaccctg	tgaacacaac	ggtggacttc	ggtgggacaa	cgctcctcca	gtgcaagggtg	240
cgcagtgcg	tgaagcctgt	gatccagtgg	ctgaagcggg	tggagtacgg	ctccgaggga	300
cgccacaact	ccaccattga	tgtgggtggc	cagaagtgtg	tgggtgttgcc	cacgggtgat	360
gtgtgggtcac	ggcctgatgg	ctcctacctc	aacaagctgc	tcattctctcg	ggcccgccag	420
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gccttcctca	ctgtattacc	agaccccaaa	cctccagggc	ctcctatggc	ttcttcatcg	540
tcattccacaa	gcctgccatg	gcctgtgggtg	atcggcatcc	cagctgggtgc	tgtcttcatc	600
ctaggcactg	tgctgctctg	gctttgccag	accaagaaga	agccatgtgc	cccagcatct	660
acacttcctg	tgccctggga	tcgtcccca	gggacatccc	gagaacgcag	tggtgacaag	720
gacctgccct	cattggctgt	gggcataatgt	gaggagcatg	gatccgccat	ggccccccag	780
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gtgcacacac	acacacatac	acacacctgc	actcacacgc	tctcatgtgg	agggcaagggt	900
tcattcaacac	cagcatgtcc	actatcagtg	ctaaatacag	cgaatctcca	agcactgtgt	960
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<210> 99
 <211> 343
 <212> PRT
 <213> Mouse

<400> 99

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
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Ser	Ala	Glu	Ala	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser
			20					25					30	
Gly	Pro	Gly	Gly	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln
		35					40					45		
Trp	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro
	50					55					60			
Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys
65					70					75				80
Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu
				85					90					95
Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln
			100					105					110	
Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly
	115						120					125		
Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala
	130					135					140			
Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg
145					150					155				160

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Ala Phe Leu Thr Val Leu Pro Asp Pro Lys Pro Pro Gly Pro Pro Met
 165 170 175
 Ala Ser Ser Ser Ser Ser Thr Ser Leu Pro Trp Pro Val Val Ile Gly
 180 185 190
 Ile Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Val Leu Leu Trp Leu
 195 200 205
 Cys Gln Thr Lys Lys Lys Pro Cys Ala Pro Ala Ser Thr Leu Pro Val
 210 215 220
 Pro Gly His Arg Pro Pro Gly Thr Ser Arg Glu Arg Ser Gly Asp Lys
 225 230 235 240
 Asp Leu Pro Ser Leu Ala Val Gly Ile Cys Glu Glu His Gly Ser Ala
 245 250 255
 Met Ala Pro Gln His Ile Leu Ala Ser Gly Ser Thr Ala Gly Pro Lys
 260 265 270
 Leu Tyr Pro Lys Leu Tyr Thr Asp Val His Thr His Thr His Thr His
 275 280 285
 Thr Cys Thr His Thr Leu Ser Cys Gly Gly Gln Gly Ser Ser Thr Pro
 290 295 300
 Ala Cys Pro Leu Ser Val Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys
 305 310 315 320
 Pro Glu Val Gly Ile Trp Gly Pro Arg Gln Gln Val Gly Arg Ile Glu
 325 330 335
 Asn Asn Gly Gly Arg Val Ser
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<210> 100
 <211> 1236
 <212> DNA
 <213> Mouse

<400> 100
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 cctgtgggta gctctgtgcg gctcaagtgt gtggccagtg ggcacccacg gccagacatc 180
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 aagtggacac tgagcttgaa gaacctgaag cctgaagaca gtggcaagta cacgtgccgt 300
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 acaacgtcct tccagtgcaa ggtgcgagc gacgtgaagc ctgtgatcca gtggctgaag 480
 cgggtggagt acggctccga gggacgccac aactccacca ttgatgtggg tggccagaag 540
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 aagaagccat gtgccccagc atctacactt cctgtgcctg ggcattcgtc cccagggaca 900
 tcccagagaac gcagtgggtga caaggacctg ccctcattgg ctgtgggcat atgtgaggag 960
 catggatccg ccatggcccc ccagcacatc ctggcctctg gctcaactgc tggccccaag 1020
 ctgtaccca agctatacac agatgtgcac acacacacac atacacacac ctgcactcac 1080
 acgctctcat gtggagggca aggttcatca acaccagcat gtccactatc agtgctaaat 1140
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<210> 101
 <211> 411
 <212> PRT
 <213> Mouse

<400> 101
 Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Gly Ala Leu Pro
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 Ser Ala Glu Ala Ala Arg Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys
 20 25 30

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Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu
		35					40					45			
Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys
	50					55					60				
Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys
65					70					75					80
Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys
				85					90					95	
Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr
			100					105					110		
Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly
		115					120					125			
Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe
	130					135					140				
Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys
145					150					155					160
Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val
				165					170					175	
Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg
			180					185					190		
Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln
		195					200					205			
Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr
	210					215					220				
Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro	Pro
225					230					235					240
Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro
				245					250					255	
Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val
			260					265					270		
Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser
		275					280					285			
Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg
	290					295					300				
Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	Glu
305					310					315					320
His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr
				325					330					335	
Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His
			340					345					350		
Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly
		355					360					365			
Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu
	370					375					380				
Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val
385					390					395					400
Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg	Val	Ser					
				405					410						

<210> 102
 <211> 870
 <212> DNA
 <213> Mouse

<400> 102	
atgacgcgga	gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
gcgcgaggac	ccccagaat ggcagacaaa gtgggtccac ggcaggtggc cgcctgggc 120
cgactgtgc	ggctacagtg ccagtgagg ggggaccac caccgttgac catgtggacc 180
aaagatggcc	gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
aaggtgaagg	aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
tttggcagcc	tcagcgtcaa ctacactctc atcatcatgg accccaaacc tccagggcct 360
cctatggctt	cttcatcgtc atccacaagc ctgccatggc ctgtgggtgat cggcatccca 420
gctggtgctg	tcttcatcct aggcactgtg ctgctctggc ttgcccagac caagaagaag 480

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ccatgtgccc	cagcatctac	acttcctgtg	cctggggcatc	gtcccccagg	gacatcccga	540
gaacgcagt	gtgacaagga	cctgccctca	ttggctgtgg	gcatatgtga	ggagcatgga	600
tccgccatgg	ccccccagca	catcctggcc	tctggctcaa	ctgctggccc	caagctgtac	660
cccaagctat	acacagatgt	gcacacacac	acacatacac	acacctgcac	tcacacgctc	720
tcatgtggag	ggcaagggttc	atcaacacca	gcatgtccac	tatcagtgtc	aaatacagcg	780
aatctccaag	cactgtgtcc	tgaggtaggc	atttgggggc	caaggcaaca	ggttgggaga	840
attgagaaca	atggaggaag	agtatcttag				870

<210> 103
 <211> 289
 <212> PRT
 <213> Mouse

<400> 103

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val
			20				25					30		Val
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys
		35					40				45			Pro
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly
	50					55					60			Arg
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly
65				70				75						80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys
			85					90					95	Lys
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile
			100					105					110	Ile
Met	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser
		115					120					125		
Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala
	130					135					140			Val
Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys
145				150					155					160
Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro
			165					170						175
Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu
			180					185					190	Ala
Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His
	195						200					205		Ile
Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu
	210					215					220			Tyr
Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr
225				230				235						240
Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser
			245					250					255	Val
Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile
			260					265					270	Trp
Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg
		275					280					285		Val
Ser														

<210> 104
 <211> 678
 <212> DNA
 <213> Mouse

<400> 104

atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg	60
gcgcgagatg	atattagtcc	agggaaggag	agccctgggc	caggtgggtc	ttcggggggc	120
caggaggacc	cagccagcca	gcagtgggac	cccaaacctc	cagggcctcc	tatggcttct	180
tcatcgtcat	ccacaagcct	gccatggcct	gtggtgatcg	gcatcccagc	tggtgctgtc	240

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ttcatcctag	gcactgtgct	gctctggctt	tgccagacca	agaagaagcc	atgtgccccca	300
gcatctacac	ttcctgtgcc	tgggcatcgt	ccccaggga	catcccagaga	acgcagtggg	360
gacaaggacc	tgccctcatt	ggctgtgggc	atatgtgagg	agcatggatc	cgccatggcc	420
ccccagcaca	tcctggcctc	tggctcaact	gctggcccca	agctgtaccc	caagctatac	480
acagatgtgc	acacacacac	acatacacac	acctgcactc	acacgctctc	atgtggaggg	540
caaggttcat	caacaccagc	atgtccacta	tcagtgtctaa	atacagcgaa	tctccaagca	600
ctgtgtcctg	aggtaggcat	ttggggggcca	aggcaacagg	ttggggagaat	tgagaacaat	660
ggaggaagag	tatcttag					678

<210> 105
 <211> 225
 <212> PRT
 <213> Mouse

<400> 105

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5					10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro
			20					25					30		
Gly	Pro	Gly	Gly	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln
		35					40					45			
Trp	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser
	50					55					60				
Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val
65					70				75						80
Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys
				85					90					95	
Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro
			100					105					110		
Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala
		115					120					125			
Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile
	130					135					140				
Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr
145					150				155						160
Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu
				165					170						
Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val
			180					185					190		
Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp
	195						200					205			
Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg	Val
	210					215					220				

Ser
225

<210> 106
 <211> 882
 <212> DNA
 <213> Mouse

<400> 106

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gcgcgagcac	ggcctcgctt	cacacagccc	tccaagatga	ggcgccgagt	gattgcacgg	120
cctgtgggta	gctctgtgcg	gctcaagtgt	gtggccagtg	ggcacccacg	gccagacatc	180
atgtggatga	aggatgacca	gaccttgacg	catctagagg	ctagtgaaca	cagaaagaag	240
aagtggacac	tgagcttgaa	gaacctgaag	cctgaagaca	gtggcaagta	cacgtgccgt	300
gtatctaaca	aggccggtgc	catcaacgcc	acctacaaag	tgatgtaat	ccaccccaaa	360
cctccagggc	ctcctatggc	ttcttcacg	tcatccacaa	gcctgccatg	gcctgtggtg	420
atcggcatcc	cagctgggtgc	tgtcttcac	ctaggcactg	tgctgctctg	gctttgccag	480
accaagaaga	agccatgtgc	cccagcatct	acacttcctg	tgctgggca	tcgtcccca	540
gggacatccc	gagaacgcag	tggtgacaag	gacctgccct	cattggctgt	gggcatatgt	600
gaggagcatg	gatccgccat	ggccccccag	cacatcctgg	cctctggctc	aactgctggc	660

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cccaagctgt	acccaagct	atacacagat	gtgcacacac	acacacatac	acacacctgc	720
actcacacgc	tctcatgtgg	agggcaaggt	tcatcaacac	cagcatgtcc	actatcagtg	780
ctaaatacag	cgaatctcca	agcactgtgt	cctgaggtag	gcatttgggg	gccaaggcaa	840
caggttgga	gaattgagaa	caatggagga	agagtatctt	ag		882

<210> 107
 <211> 293
 <212> PRT
 <213> Mouse

<400> 107

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Lys
		20					25					30		
Met	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu
	35					40					45			
Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Lys
	50					55					60			
Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys
65					70				75					80
Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly
			85						90					95
Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr
			100					105					110	
Lys	Val	Asp	Val	Ile	His	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala
		115					120					125		
Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly	Ile
	130					135					140			
Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys
145					150				155					160
Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro
				165				170						175
His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp
			180					185					190	
Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala	Met
		195					200					205		
Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu
	210					215					220			
Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His	Thr
225					230				235					240
Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala
			245					250						255
Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro
			260					265					270	
Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn
		275					280					285		
Gly	Gly	Arg	Val	Ser										
	290													

<210> 108
 <211> 951
 <212> DNA
 <213> Mouse

<400> 108

atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg	60
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gtggacttcg	gtgggacaac	gtccttccag	tgcaagggtg	gcagtgacgt	gaagcctgtg	180
atccagtggc	tgaagcgggt	ggagtacggc	tccgagggac	gccacaactc	caccattgat	240
gtgggtggcc	agaagtttgt	ggtgttgccc	acgggtgatg	tgtggtcacg	gcctgatggc	300
tcctacctca	acaagctgct	catctctcgg	gcccgccagg	atgatgctgg	catgtacatc	360
tgcctaggtg	caaataccat	gggctacagt	ttccgtagcg	ccttcctcac	tgtattacca	420

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gaccccaaac	ctccagggcc	tcctatggct	tcttcatcgt	catccacaag	cctgccatgg	480
cctgtggtga	tcggcatccc	agctggtgct	gtcttcatcc	taggcactgt	gctgctctgg	540
ctttgccaga	ccaagaagaa	gccatgtgcc	ccagcatcta	cacttcctgt	gcctgggcat	600
cgtcccccag	ggacatcccg	agaacgcagt	ggtgacaagg	acctgccctc	attggctgtg	660
ggcatatgtg	aggagcatgg	atccgccatg	gccccccagc	acatcctggc	ctctggctca	720
actgctggcc	ccaagctgta	ccccaaagcta	tacacagatg	tgcacacaca	cacacataca	780
cacacctgca	ctcacacgct	ctcatgtgga	gggcaagggtt	catcaacacc	agcatgtcca	840
ctatcagtgc	taaatacagc	gaatctccaa	gcactgtgtc	ctgaggtagg	catttggggg	900
ccaaggcaac	aggttgggag	aattgagaac	aatggaggaa	gagtatctta	g	951

<210> 109
 <211> 316
 <212> PRT
 <213> Mouse

<400> 109

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro	
1				5				10					15		
Ser	Ala	Glu	Ala	Ala	Arg	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr
			20					25					30		
Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser
		35				40						45			
Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu
	50					55					60				
Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp
	65				70				75					80	
Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser
			85					90						95	
Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg
			100					105					110		
Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly
		115				120						125			
Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro	Lys	Pro
	130					135					140				
Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp
	145				150					155				160	
Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr
			165					170						175	
Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala
			180					185					190		
Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu
		195					200					205			
Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu
	210					215					220				
Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser
	225				230					235					240
Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr
			245					250						255	
His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln
			260					265					270		
Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn
		275					280					285			
Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln
	290					295					300				
Val	Gly	Arg	Ile	Glu	Asn	Gly	Gly	Arg	Val	Ser					
	305				310				315						

<210> 110
 <211> 597
 <212> DNA
 <213> Mouse

<400> 110

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atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg	60
gcgcgagacc	ccaaacctcc	agggcctcct	atggcttctt	catcgtcatc	cacaagcctg	120
ccatggcctg	tggtgatcgg	catcccagct	ggtgctgtct	tcatacctagg	cactgtgctg	180
ctctggcttt	gccagaccaa	gaagaagcca	tgtgccccag	catctacact	tcctgtgcct	240
gggcatcgtc	ccccagggac	atcccagagaa	cgagtggtg	acaaggacct	gccctcattg	300
gctgtgggca	tatgtgagga	gcatggatcc	gccatggccc	cccagcacat	cctggcctct	360
ggctcaactg	ctggcccca	gctgtacccc	aagctataca	cagatgtgca	cacacacaca	420
catacacaca	cctgcactca	cacgctctca	tgtggagggc	aagggttcac	aacaccagca	480
tgtccactat	cagtgctaaa	tacagcgaat	ctccaagcac	tgtgtcctga	ggtaggcatt	540
tgggggcca	ggcaacaggt	tgggagaatt	gagaacaatg	gaggaagagt	atcttag	597

<210> 111
 <211> 198
 <212> PRT
 <213> Mouse

<400> 111

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Asp	Pro	Lys	Pro	Pro	Gly	Pro	Pro	Met
			20					25				30		Ala
Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu	Pro	Trp	Pro	Val	Val	Ile	Gly
		35					40					45		Ile
Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu	Gly	Thr	Val	Leu	Leu	Trp	Leu
	50					55					60			Cys
Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala	Pro	Ala	Ser	Thr	Leu	Pro	Val
65					70				75					80
Gly	His	Arg	Pro	Pro	Gly	Thr	Ser	Arg	Glu	Arg	Ser	Gly	Asp	Lys
			85					90					95	Asp
Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile	Cys	Glu	Glu	His	Gly	Ser	Ala
			100					105					110	Met
Ala	Pro	Gln	His	Ile	Leu	Ala	Ser	Gly	Ser	Thr	Ala	Gly	Pro	Lys
		115					120					125		Leu
Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val	His	Thr	His	Thr	His	Thr	His
	130					135					140			
Cys	Thr	His	Thr	Leu	Ser	Cys	Gly	Gly	Gln	Gly	Ser	Ser	Thr	Pro
145					150				155					160
Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr	Ala	Asn	Leu	Gln	Ala	Leu	Cys
			165						170					175
Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg	Gln	Gln	Val	Gly	Arg	Ile	Glu
			180					185					190	Asn
Asn	Gly	Gly	Arg	Val	Ser									
		195												

<210> 112
 <211> 1060
 <212> DNA
 <213> Mouse

<400> 112

atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg	60
gcgcgaggac	ccccaagaat	ggcagacaaa	gtggtcccac	ggcaggtggc	ccgcctgggc	120
cgactgtgc	ggctacagtg	cccagtgagg	ggggaccac	caccgttgac	catgtggacc	180
aaagatggcc	gcacaatcca	cagtggtctg	agccgcttcc	gtgtgctgcc	ccagggctctg	240
aagggtgaagg	aggtggaggc	cgaggatgcc	ggtgtttatg	tgtgcaaggc	caccaatggc	300
tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	atgatattag	tccagggaag	360
gagagccctg	ggccaggtgg	ttcttcgggg	ggccaggagg	accagccag	ccagcagtgg	420
gcacggcctc	gcttcacaca	gccctccaag	atgaggcgcc	gagtgattgc	acggcctgtg	480
ggtagctctg	tgcggctcaa	gtgtgtggcc	agtgggcacc	cacggccaga	catcatgtgg	540
atgaaggatg	accagacctt	gacgcattca	gaggctagtg	aacacagaaa	gaagaagtgg	600
acactgagct	tgaagaacct	gaagcctgaa	gacagtggca	agtacacgtg	ccgtgtatct	660
aacaaggccg	gtgccatcaa	cgccacctac	aaagtggatg	taatccagcg	gactcgttcc	720
aagcctgtgc	tcacagggac	acaccctgtg	aacacaacgg	tggacttcgg	tgggacaacg	780

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tccttccagt	gcaaggtgcg	cagtgacgtg	aagcctgtga	tccagtggct	gaagcgggtg	840
gagtacggct	ccgaggggacg	ccacaactcc	accattgatg	tgggtggcca	gaagtttgtg	900
gtgttgccca	cggtgatgt	gtggtcacgg	cctgatggct	cctacctcaa	caagctgctc	960
atctctcggg	cccgccagga	tgatgctggc	atgtacatct	gcctaggtgc	aaataccatg	1020
ggctacagtt	tccgtagcgc	cttcctcact	gtattaccag			1060

<210> 113
 <211> 353
 <212> PRT
 <213> Mouse

<400> 113

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10						15	
Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val
			20				25						30		
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
		35					40					45			
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65				70					75						80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
				85					90					95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Gly	Ser
		115					120					125			
Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Ala	Arg	Pro	Arg
	130					135					140				
Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val	Ile	Ala	Arg	Pro	Val
145					150					155					160
Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser	Gly	His	Pro	Arg	Pro
				165					170					175	
Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala
			180					185					190		
Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys
		195					200					205			
Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly
	210					215					220				
Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser
225					230					235					240
Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe
				245					250					255	
Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro
			260					265					270		
Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His
		275					280					285			
Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr
	290					295					300				
Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu
305					310					315					320
Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly
				325					330					335	
Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu
			340					345					350		

Pro

<210> 114
 <211> 706
 <212> DNA
 <213> Mouse

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<400> 114
atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
gcgcgaggac cccaagaat ggcagacaaa gtggtccac ggcagggtggc ccgcctgggc 120
cgactgtgc ggctacagt cccagtggag ggggaccac caccgttgac catgtggacc 180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
tttggcagcc tcagcgtcaa ctacactctc atcatcatgg atgatattag tccagggaag 360
gagagccctg ggccagggtg ttcttcgggg ggccaggagg acccagccag ccagcagtgg 420
gcacggcctc gcttcacaca gccctccaag atgaggcgcc gagtgattgc acggcctgtg 480
ggtagctctg tgcggctcaa gtgtgtggcc agtgggcacc cacggccaga catcatgtgg 540
atgaaggatg accagacctt gacgcacta gaggctagt aacacagaaa gaagaagtgg 600
acactgagct tgaagaacct gaagcctgaa gacagtggca agtacacgtg ccgtgtatct 660
aacaaggccg gtgccatcaa cgccacctac aaagtggatg taatcc 706

<210> 115
<211> 235
<212> PRT
<213> Mouse

<400> 115
Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
1 5 10 15
Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
20 25 30
Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
35 40 45
Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
50 55 60
Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
65 70 75 80
Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
85 90 95
Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
100 105 110
Met Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro Gly Pro Gly Gly Ser
115 120 125
Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp Ala Arg Pro Arg
130 135 140
Phe Thr Gln Pro Ser Lys Met Arg Arg Arg Val Ile Ala Arg Pro Val
145 150 155 160
Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser Gly His Pro Arg Pro
165 170 175
Asp Ile Met Trp Met Lys Asp Asp Gln Thr Leu Thr His Leu Glu Ala
180 185 190
Ser Glu His Arg Lys Lys Lys Trp Thr Leu Ser Leu Lys Asn Leu Lys
195 200 205
Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val Ser Asn Lys Ala Gly
210 215 220
Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile
225 230 235

<210> 116
<211> 775
<212> DNA
<213> Mouse

<400> 116
atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
gcgcgaggac cccaagaat ggcagacaaa gtggtccac ggcagggtggc ccgcctgggc 120
cgactgtgc ggctacagt cccagtggag ggggaccac caccgttgac catgtggacc 180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300

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tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	atgatattag	tccaggggaag	360
gagagccctg	ggccagggtg	ttcttcgggg	ggccaggagg	acccagccag	ccagcagtgg	420
gagcggactc	gttccaagcc	tgtgctcaca	gggacacacc	ctgtgaacac	aacgggtggac	480
ttcgggtggga	caacgtcctt	ccagtgcgaag	gtgcgcagtg	acgtgaagcc	tgtgatccag	540
tggctgaagc	gggtggagta	cggctccgag	ggacgccaca	actccaccat	tgatgtgggt	600
ggccagaagt	ttgtgggtgt	gcccacgggt	gatgtgtggt	cacggcctga	tggtctctac	660
ctcaacaagc	tgctcatctc	tcgggcccgc	caggatgatg	ctggcatgta	catctgccta	720
ggtgcaaata	ccatgggcta	cagtttccgt	agcgccttcc	tcactgtatt	accag	775

<210> 117
 <211> 258
 <212> PRT
 <213> Mouse

<400> 117

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val
			20				25					30		Val
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys
		35				40					45			Pro
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly
	50					55					60			Arg
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly
65				70				75						80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys
			85			90							95	Lys
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile
			100			105							110	Ile
Met	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser	Pro	Gly	Pro	Gly	Gly
		115				120					125			Ser
Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln	Gln	Trp	Glu	Arg	Thr
	130					135					140			Arg
Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val
145					150					155				160
Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val
			165						170					175
Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly
		180						185					190	Arg
His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu
	195					200					205			Pro
Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys
	210					215					220			Leu
Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys
225					230					235				240
Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr
			245						250				255	Val

Leu Pro

<210> 118
 <211> 979
 <212> DNA
 <213> Mouse

<400> 118

atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg	60
gcgcgaggac	ccccaagaat	ggcagacaaa	gtggtccac	ggcagggtggc	ccgcctgggc	120
cgcactgtgc	ggctacagtg	cccagtggag	ggggaccac	caccgttgac	catgtggacc	180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccagggctctg	240
aaggtgaagg	aggtggaggc	cgaggatgcc	ggtgtttatg	tgtgcaaggc	caccaatggc	300
tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	cacggcctcg	cttcacacag	360
ccctccaaga	tgaggcgccg	agtgattgca	cggcctgtgg	gtagctctgt	gcggctcaag	420

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tgtgtggcca	gtgggcaccc	acggccagac	atcatgtgga	tgaaggatga	ccagaccttg	480
acgcatctag	aggctagtga	acacagaaag	aagaagtgga	cactgagctt	gaagaacctg	540
aagcctgaag	acagtggcaa	gtacacgtgc	cgtgtatcta	acaaggccgg	tgccatcaac	600
gccacctaca	aagtggatgt	aatccagcgg	actcgttcca	agcctgtgct	cacagggaca	660
caccctgtga	acacaacggt	ggacttcggt	gggacaacgt	ccttccagtg	caaggtgctc	720
agtgacgtga	agcctgtgat	ccagtggctg	aagcgggtgg	agtacggctc	cgagggacgc	780
cacaactcca	ccattgatgt	gggtggccag	aagtttgtgg	tgttgcccac	gggtgatgtg	840
tggtcacggc	ctgatggctc	ctacctcaac	aagctgctca	tctctcgggc	ccgccaggat	900
gatgctggca	tgtacatctg	cctaggtgca	aataccatgg	gctacagttt	ccgtagcgcc	960
ttcctcactg	tattaccag					979

<210> 119
 <211> 326
 <212> PRT
 <213> Mouse

<400> 119

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val
			20				25					30		Val
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys
		35				40					45			Pro
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly
	50					55					60			Arg
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly
65				70				75						80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys
			85			90								Lys
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile
		100				105							110	Ile
Met	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Val
		115				120					125			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala
	130				135						140			Ser
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr
145				150						155				Leu
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu
			165					170						175
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg
		180				185							190	Val
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val
		195				200						205		Ile
Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val
	210				215						220			Asn
Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val
225				230						235				Arg
Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr
			245					250					255	Gly
Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys
		260				265							270	Phe
Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser
		275				280					285			Tyr
Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly
	290				295						300			Met
Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser
305				310					315					Ala
Phe	Leu	Thr	Val	Leu	Pro									320
				325										

<210> 120
 <211> 787
 <212> DNA

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<213> Mouse

<400> 120

atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg	60
gcgcgagatg	atattagtcc	aggggaaggag	agccctgggc	caggtgggtc	ttcggggggc	120
caggaggacc	cagccagcca	gcagtgggca	cgccctcgct	tcacacagcc	ctccaagatg	180
aggcgccgag	tgattgcacg	gcctgtgggt	agctctgtgc	ggctcaagtg	tgtggccagt	240
gggcacccac	ggccagacat	catgtggatg	aaggatgacc	agaccttgac	gcatctagag	300
gctagtgaac	acagaaagaa	gaagtggaca	ctgagcttga	agaacctgaa	gcctgaagac	360
agtggcaagt	acacgtgccg	tgtatctaac	aaggccggtg	ccatcaacgc	cacctacaaa	420
gtggatgtaa	tccagcggac	tcgttccaag	cctgtgctca	cagggacaca	ccctgtgaac	480
acaacggtgg	acttcggtgg	gacaacgtcc	ttccagtgc	aggtgcgcag	tgacgtgaag	540
cctgtgatcc	agtggctgaa	gcgggtggag	tacggctccg	agggacgcca	caactccacc	600
attgatgtgg	gtggccagaa	gtttgtggtg	ttgccacgg	gtgatgtgtg	gtcacggcct	660
gatggctcct	acctcaacaa	gctgctcatc	tctcggggcc	gccaggatga	tgctggcatg	720
tacatctgcc	taggtgcaaa	taccatgggc	tacagtttcc	gtagcgcctt	cctcactgta	780
ttaccag						787

<210> 121

<211> 262

<212> PRT

<213> Mouse

<400> 121

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser
			20					25					30	Pro
Gly	Pro	Gly	Gly	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln
		35				40						45		Gln
Trp	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Val
	50					55					60			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala
65					70					75				80
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr
				85					90				95	Leu
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu
			100					105					110	Ser
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg
		115				120					125			Val
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val
	130					135					140			Ile
Gln	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro	Val
145					150					155				Asn
Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys	Val
			165						170					Arg
Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu	Tyr
			180					185					190	Gly
Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln	Lys
		195					200				205			Phe
Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly	Ser
	210				215						220			Tyr
Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala	Gly
225					230					235				Met
Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg	Ser
			245						250					Ala
Phe	Leu	Thr	Val	Leu	Pro									
			260											

<210> 122

<211> 421

<212> DNA

<213> Mouse

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<400> 122
atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
gcgcgaggac cccaagaat ggcagacaaa gtggtccac ggcaggtggc ccgcctgggc 120
cgactgtgc ggctacagt cccagtggag ggggaccac caccgttgac catgtggacc 180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
tttggcagcc tcagcgtcaa ctacactctc atcatcatgg atgatattag tccagggaag 360
gagagccctg ggccaggtgg ttcttcgggg ggccaggagg acccagccag ccagcagtgg 420
g 421

<210> 123
<211> 140
<212> PRT
<213> Mouse

<400> 123
Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
1 5 10 15
Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
20 25 30
Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
35 40 45
Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
50 55 60
Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
65 70 75 80
Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
85 90 95
Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
100 105 110
Met Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro Gly Pro Gly Gly Ser
115 120 125
Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln Trp
130 135 140

<210> 124
<211> 625
<212> DNA
<213> Mouse

<400> 124
atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
gcgcgaggac cccaagaat ggcagacaaa gtggtccac ggcaggtggc ccgcctgggc 120
cgactgtgc ggctacagt cccagtggag ggggaccac caccgttgac catgtggacc 180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg 240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc 300
tttggcagcc tcagcgtcaa ctacactctc atcatcatgg cacggcctcg cttcacacag 360
ccctccaaga tgaggcgccg agtgattgca cggcctgtgg gtagctctgt gcggctcaag 420
tgtgtggcca gtgggcaccc acggccagac atcatgtgga tgaaggatga ccagacctg 480
acgcatctag aggctagtga acacagaaag aagaagtgga cactgagctt gaagaacctg 540
aagcctgaag acagtggcaa gtacacgtgc cgtgtatcta acaaggccgg tgccatcaac 600
gccacctaca aagtggatgt aatcc 625

<210> 125
<211> 208
<212> PRT
<213> Mouse

<400> 125
Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
1 5 10 15
Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val

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Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro
		35					40					45			
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg
	50					55					60				
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu
65					70					75					80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys
			85						90					95	
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile
			100					105					110		
Met	Ala	Arg	Pro	Arg	Phe	Thr	Gln	Pro	Ser	Lys	Met	Arg	Arg	Arg	Val
		115					120					125			
Ile	Ala	Arg	Pro	Val	Gly	Ser	Ser	Val	Arg	Leu	Lys	Cys	Val	Ala	Ser
	130					135						140			
Gly	His	Pro	Arg	Pro	Asp	Ile	Met	Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu
145					150					155					160
Thr	His	Leu	Glu	Ala	Ser	Glu	His	Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser
				165					170					175	
Leu	Lys	Asn	Leu	Lys	Pro	Glu	Asp	Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val
			180					185					190		
Ser	Asn	Lys	Ala	Gly	Ala	Ile	Asn	Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile
		195					200					205			

<210> 126
 <211> 694
 <212> DNA
 <213> Mouse

<400> 126																
atgacgcgga	gccccgcgct	gctgctgctg	ctattggggg	ccctcccgtc	ggctgaggcg											60
gcgcgaggac	ccccagaat	ggcagacaaa	gtggtcccac	ggcaggtggc	ccgcctgggc											120
cgcactgtgc	ggctacagtg	cccagtgagg	ggggacccac	caccgttgac	catgtggacc											180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccaggggtctg											240
aaggtgaagg	aggtggaggc	cgaggatgcc	ggtgtttatg	tgtgcaaggc	caccaatggc											300
tttggcagcc	tcagcgtcaa	ctacactctc	atcatcatgg	agcggactcg	ttccaagcct											360
gtgctcacag	ggacacaccc	tgtgaacaca	acggtggact	tcggtgggac	aacgtccttc											420
cagtgcgaag	tgcgcagtg	cgtgaagcct	gtgatccagt	ggctgaagcg	ggtggagtac											480
ggctccgagg	gacgccacaa	ctccaccatt	gatgtgggtg	gccagaagtt	tgtggtgttg											540
cccacgggtg	atgtgtggtc	acggcctgat	ggctcctacc	tcaacaagct	gctcatctct											600
cgggcccgcc	aggatgatgc	tggcatgtac	atctgcctag	gtgcaaatac	catgggctac											660
agtttccgta	gcgccttcct	cactgtatta	ccag													694

<210> 127
 <211> 231
 <212> PRT
 <213> Mouse

<400> 127																
Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro		
1				5				10					15			
Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val	Val	
			20					25					30			
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys	Pro	
		35					40					45				
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly	Arg	
	50					55					60					
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly	Leu	
65					70					75					80	
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys	Lys	
			85						90					95		
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile	Ile	
			100					105					110			

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Met Glu Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro Val
 115 120 125
 Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys Val
 130 135 140
 Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu Tyr
 145 150 155 160
 Gly Ser Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln Lys
 165 170 175
 Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly Ser
 180 185 190
 Tyr Leu Asn Lys Leu Leu Ile Ser Arg Ala Arg Gln Asp Asp Ala Gly
 195 200 205
 Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg Ser
 210 215 220
 Ala Phe Leu Thr Val Leu Pro
 225 230

<210> 128
 <211> 433
 <212> DNA
 <213> Mouse

<400> 128
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 ggcgcgagatg atattagtcc aggggaaggag agccctgggc caggtgggtc ttcggggggc 120
 caggaggacc cagccagcca gcagtgggca cggcctcgct tcacacagcc ctccaagatg 180
 aggcgccgag tgattgcacg gcctgtgggt agctctgtgc ggctcaagtg tgtggccagt 240
 gggcacccac ggccagacat catgtggatg aaggatgacc agaccttgac gcatctagag 300
 gctagtgaac acagaaagaa gaagtggaca ctgagcttga agaacctgaa gcctgaagac 360
 agtggcaagt acacgtgccg tgtatctaac aaggccggtg ccatcaacgc cacctacaaa 420
 gtggatgtaa tcc 433

<210> 129
 <211> 144
 <212> PRT
 <213> Mouse

<400> 129
 Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Gly Ala Leu Pro
 1 5 10 15
 Ser Ala Glu Ala Ala Arg Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro
 20 25 30
 Gly Pro Gly Gly Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln
 35 40 45
 Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met Arg Arg Arg Val
 50 55 60
 Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val Ala Ser
 65 70 75 80
 Gly His Pro Arg Pro Asp Ile Met Trp Met Lys Asp Asp Gln Thr Leu
 85 90 95
 Thr His Leu Glu Ala Ser Glu His Arg Lys Lys Lys Trp Thr Leu Ser
 100 105 110
 Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys Tyr Thr Cys Arg Val
 115 120 125
 Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp Val Ile
 130 135 140

<210> 130
 <211> 502
 <212> DNA
 <213> Mouse

<400> 130

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gcgcgagatg	atattagtcc	aggggaaggag	agccctgggc	caggtgggtc	ttcggggggc	120
caggaggacc	cagccagcca	gcagtgggag	cggactcgtt	ccaagcctgt	gctcacaggg	180
acacaccctg	tgaacacaac	ggtggacttc	ggtgggacaa	cgtccttcca	gtgcaagggtg	240
cgcagtgcg	tgaagcctgt	gatccagtgg	ctgaagcggg	tggagtacgg	ctccgaggga	300
cgccacaact	ccaccattga	tgtgggtggc	cagaagtttg	tgggtgttgc	cacgggtgat	360
gtgtgggtcac	ggcctgatgg	ctcctacctc	aacaagctgc	tcatctctcg	ggcccgccag	420
gatgatgctg	gcatgtacat	ctgcctaggt	gcaaatacca	tgggctacag	tttccgtagc	480
gccttcctca	ctgtattacc	ag				502

<210> 131
 <211> 167
 <212> PRT
 <213> Mouse

<400> 131

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
1				5				10					15	
Ser	Ala	Glu	Ala	Ala	Arg	Asp	Asp	Ile	Ser	Pro	Gly	Lys	Glu	Ser
			20					25					30	
Gly	Pro	Gly	Gly	Ser	Ser	Gly	Gly	Gln	Glu	Asp	Pro	Ala	Ser	Gln
		35				40						45		
Trp	Glu	Arg	Thr	Arg	Ser	Lys	Pro	Val	Leu	Thr	Gly	Thr	His	Pro
	50					55					60			
Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly	Thr	Thr	Ser	Phe	Gln	Cys	Lys
65					70					75				80
Arg	Ser	Asp	Val	Lys	Pro	Val	Ile	Gln	Trp	Leu	Lys	Arg	Val	Glu
				85				90						95
Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr	Ile	Asp	Val	Gly	Gly	Gln
			100					105					110	
Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val	Trp	Ser	Arg	Pro	Asp	Gly
		115				120						125		
Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg	Ala	Arg	Gln	Asp	Asp	Ala
	130					135					140			
Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr	Met	Gly	Tyr	Ser	Phe	Arg
145					150					155				160
Ala	Phe	Leu	Thr	Val	Leu	Pro								
				165										

<210> 132
 <211> 706
 <212> DNA
 <213> Mouse

<400> 132

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gcgcgagcac	ggcctcgctt	cacacagccc	tccaagatga	ggcgccgagt	gattgcacgg	120
cctgtgggta	gctctgtgcg	gctcaagtgt	gtggccagtg	ggcacccacg	gccagacatc	180
atgtggatga	aggatgacca	gaccttgacg	catctagagg	ctagtgaaca	cagaaagaag	240
aagtggacac	tgagcttgaa	gaacctgaag	cctgaagaca	gtggcaagta	cacgtgccgt	300
gtatctaaca	aggccggtgc	catcaacgcc	acctacaaag	tggatgtaat	ccagcggact	360
cgttccaagc	ctgtgctcac	agggacacac	cctgtgaaca	caacggtgga	cttcggtggg	420
acaacgtcct	tccagtgcaa	ggtgcgcagt	gacgtgaagc	ctgtgatcca	gtggctgaag	480
cgggtggagt	acggctccga	gggacgccac	aactccacca	ttgatgtggg	tggccagaag	540
tttgtggtgt	tgcccacggg	tgatgtgtgg	tcacggcctg	atggctccta	cctcaacaag	600
ctgctcatct	ctcgggcccc	ccaggatgat	gctggcatgt	acatctgcct	aggtgcaaat	660
accatgggct	acagtttccg	tagcgccttc	ctcactgtat	taccag		706

<210> 133
 <211> 235
 <212> PRT
 <213> Mouse

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<400> 133

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Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
1      5      10      15
Ser Ala Glu Ala Ala Arg Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys
20      25      30
Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu
35      40      45
Lys Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Met Trp Met Lys
50      55      60
Asp Asp Gln Thr Leu Thr His Leu Glu Ala Ser Glu His Arg Lys Lys
65      70      75      80
Lys Trp Thr Leu Ser Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys
85      90      95
Tyr Thr Cys Arg Val Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr
100     105     110
Lys Val Asp Val Ile Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly
115     120     125
Thr His Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe
130     135     140
Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys
145     150     155     160
Arg Val Glu Tyr Gly Ser Glu Gly Arg His Asn Ser Thr Ile Asp Val
165     170     175
Gly Gly Gln Lys Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg
180     185     190
Pro Asp Gly Ser Tyr Leu Asn Lys Leu Leu Ile Ser Arg Ala Arg Gln
195     200     205
Asp Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr
210     215     220
Ser Phe Arg Ser Ala Phe Leu Thr Val Leu Pro
225     230     235

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<210> 134

<211> 340

<212> DNA

<213> Mouse

<400> 134

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atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg      60
gcgcgaggac cccaagaat ggcagacaaa gtggtccac ggcaggtggc ccgcctgggc      120
cgactgtgc ggctacagtg ccagtgagg ggggaccac caccgttgac catgtggacc      180
aaagatggcc gcacaatcca cagtggctgg agccgcttcc gtgtgctgcc ccagggtctg      240
aaggtgaagg aggtggaggc cgaggatgcc ggtgtttatg tgtgcaaggc caccaatggc      300
tttggcagcc tcagcgtcaa ctacactctc atcatcatgg      340

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<210> 135

<211> 113

<212> PRT

<213> Mouse

<400> 135

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Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
1      5      10      15
Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val
20      25      30
Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro
35      40      45
Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg
50      55      60
Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu
65      70      75      80
Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys
85      90      95

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Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile
 100 105 110
 Met

<210> 136
 <211> 148
 <212> DNA
 <213> Mouse

<400> 136
 atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
 gcgcgagatg atattagtcc aggggaaggag agccctgggc caggtgggtc ttcggggggc 120
 caggaggacc cagccagcca gcagtggg 148

<210> 137
 <211> 49
 <212> PRT
 <213> Mouse

<400> 137
 Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
 1 5 10 15
 Ser Ala Glu Ala Ala Arg Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro
 20 25 30
 Gly Pro Gly Gly Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln
 35 40 45
 Trp

<210> 138
 <211> 352
 <212> DNA
 <213> Mouse

<400> 138
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 gcgcgagcac ggcctcgctt cacacagccc tccaagatga ggcgccgagt gattgcacgg 120
 cctgtgggta gctctgtgctg gctcaagtgt gtggccagtg ggcacccacg gccagacatc 180
 atgtggatga aggatgacca gaccttgacg catctagagg ctagtgaaca cagaaagaag 240
 aagtggacac tgagcttgaa gaacctgaag cctgaagaca gtggcaagta cacgtgccgt 300
 gtatctaaca aggccggtgc catcaacgcc acctacaaag tggatgtaat cc 352

<210> 139
 <211> 117
 <212> PRT
 <213> Mouse

<400> 139
 Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
 1 5 10 15
 Ser Ala Glu Ala Ala Arg Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys
 20 25 30
 Met Arg Arg Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu
 35 40 45
 Lys Cys Val Ala Ser Gly His Pro Arg Pro Asp Ile Met Trp Met Lys
 50 55 60
 Asp Asp Gln Thr Leu Thr His Leu Glu Ala Ser Glu His Arg Lys Lys
 65 70 75 80
 Lys Trp Thr Leu Ser Leu Lys Asn Leu Lys Pro Glu Asp Ser Gly Lys
 85 90 95
 Tyr Thr Cys Arg Val Ser Asn Lys Ala Gly Ala Ile Asn Ala Thr Tyr
 100 105 110

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Lys Val Asp Val Ile
115

<210> 140
<211> 421
<212> DNA
<213> Mouse

<400> 140
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gcgcgagagc ggactcgttc caagcctgtg ctcacaggga cacaccctgt gaacacaacg 120
gtggacttcg gtgggacaac gtccttccag tgcaagggtg gcagtgcgtg gaagcctgtg 180
atccagtggc tgaagcgggt ggagtacggc tccgagggac gccacaactc caccattgat 240
gtgggtggcc agaagtttgt ggtgttgccc acgggtgatg tgtggtcacg gcctgatggc 300
tcctacctca acaagctgct catctctcgg gcccgccagg atgatgctgg catgtacatc 360
tgcctagggtg caaataccat gggctacagt ttccgtagcg ccttcctcac tgtattacca 420
g 421

<210> 141
<211> 140
<212> PRT
<213> Mouse

<400> 141
Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
1 5 10 15
Ser Ala Glu Ala Ala Arg Glu Arg Thr Arg Ser Lys Pro Val Leu Thr
20 25 30
Gly Thr His Pro Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser
35 40 45
Phe Gln Cys Lys Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu
50 55 60
Lys Arg Val Glu Tyr Gly Ser Glu Gly Arg His Asn Ser Thr Ile Asp
65 70 75 80
Val Gly Gly Gln Lys Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser
85 90 95
Arg Pro Asp Gly Ser Tyr Leu Asn Lys Leu Leu Ile Ser Arg Ala Arg
100 105 110
Gln Asp Asp Ala Gly Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly
115 120 125
Tyr Ser Phe Arg Ser Ala Phe Leu Thr Val Leu Pro
130 135 140

<210> 142
<211> 67
<212> DNA
<213> Mouse

<400> 142
atgacgcgga gccccgcgct gctgctgctg ctattggggg ccctcccgtc ggctgaggcg 60
gcgcgag 67

<210> 143
<211> 22
<212> PRT
<213> Mouse

<400> 143
Met Thr Arg Ser Pro Ala Leu Leu Leu Leu Leu Leu Gly Ala Leu Pro
1 5 10 15
Ser Ala Glu Ala Ala Arg
20

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<210> 144
<211> 1389
<212> DNA
<213> Mouse

<400> 1

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gcgcgaggac	cccccaagaat	ggcagacaaa	gtgggtcccac	ggcaggtggc	ccgcctgggc	120
cgcactgtgc	ggctacagtg	cccagtgagg	ggggaccac	caccgttgac	catgtggacc	180
aaagatggcc	gcacaatcca	cagtggctgg	agccgcttcc	gtgtgctgcc	ccaggggtctg	240
aaggtgaagg	aggtggaggc	cgaggatgcc	gggtgtttatg	tgtgcaaggc	caccaatggc	300
tttggcagcc	tcagcgtcaa	ctacactctc	atcatgtgga	tgaaggatga	ccagaccttg	360
acgcatctag	aggctagtga	acacagaaag	aagaagtgga	cactgagctt	gaagaacctg	420
aagcctgaag	acagtggcaa	gtacacgtgc	cgtgtatcta	acaaggccgg	tgccatcaac	480
gccacctaca	aagtggatgt	aatccagcgg	actcgttcca	agcctgtgct	cacagggaca	540
caccctgtga	acacaacggc	ggacttcggg	gggacaacgt	ccttccagtg	caaggtgcgc	600
agtgacgtga	agcctgtgat	ccagtggtcg	aagcgggtgg	agtacggctc	cgagggacgc	660
cacaactcca	ccattgatgt	gggtggccag	aagtttgtgg	tgttgccac	gggtgatgtg	720
tggtcacggc	ctgatggctc	ctacctcaac	aagctgctca	tctctcgggc	ccgccaggat	780
gatgctggca	tgtacacctg	cctaggtgca	aataccatgg	gctacagttt	ccgtagcgcc	840
ttcctcactg	tattaccaga	ccccaaacct	ccagggcctc	ctatggcttc	ttcatcgtca	900
tccacaagcc	tgccatggcc	tgtggtgatc	ggcatcccag	ctggtgctgt	cttcatccta	960
ggcactgtgc	tgctctggct	ttgccagacc	aagaagaagc	catgtgcccc	agcatctaca	1020
cttcctgtgc	ctgggcatcg	tccccaggg	acatcccag	aacgcagtgg	tgacaaggac	1080
ctgccctcat	tggctgtggg	catatgtgag	gagcatggat	ccgccatggc	cccccagcac	1140
atcctggcct	ctgggtcaac	tgctggcccc	aagctgtacc	ccaagctata	cacagatgtg	1200
cacacacaca	cacatacaca	cacctgcact	cacacgtctt	catgtggagg	gcaagggttca	1260
tcaacaccag	catgtccact	atcagtgcta	aatacagcga	atctccaagc	actgtgtcct	1320
gaggtaggca	tatggggggc	aaggcaacag	gttgggagaa	ttgagaacaa	tggaggaaga	1380
gtatcttag						1389

<210> 145
<211> 462
<212> PRT
<213> Mouse

<400> 2

Met	Thr	Arg	Ser	Pro	Ala	Leu	Leu	Leu	Leu	Leu	Gly	Ala	Leu	Pro
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Ser	Ala	Glu	Ala	Ala	Arg	Gly	Pro	Pro	Arg	Met	Ala	Asp	Lys	Val
			20				25					30		Val
Pro	Arg	Gln	Val	Ala	Arg	Leu	Gly	Arg	Thr	Val	Arg	Leu	Gln	Cys
		35					40				45			Pro
Val	Glu	Gly	Asp	Pro	Pro	Pro	Leu	Thr	Met	Trp	Thr	Lys	Asp	Gly
	50					55					60			Arg
Thr	Ile	His	Ser	Gly	Trp	Ser	Arg	Phe	Arg	Val	Leu	Pro	Gln	Gly
65				70				75						80
Lys	Val	Lys	Glu	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Val	Cys
			85					90						Lys
Ala	Thr	Asn	Gly	Phe	Gly	Ser	Leu	Ser	Val	Asn	Tyr	Thr	Leu	Ile
		100						105					110	Met
Trp	Met	Lys	Asp	Asp	Gln	Thr	Leu	Thr	His	Leu	Glu	Ala	Ser	Glu
		115					120				125			His
Arg	Lys	Lys	Lys	Trp	Thr	Leu	Ser	Leu	Lys	Asn	Leu	Lys	Pro	Glu
	130					135					140			Asp
Ser	Gly	Lys	Tyr	Thr	Cys	Arg	Val	Ser	Asn	Lys	Ala	Gly	Ala	Ile
145				150					155					160
Ala	Thr	Tyr	Lys	Val	Asp	Val	Ile	Gln	Arg	Thr	Arg	Ser	Lys	Pro
			165					170					175	Val
Leu	Thr	Gly	Thr	His	Pro	Val	Asn	Thr	Thr	Val	Asp	Phe	Gly	Gly
		180					185						190	Thr
Thr	Ser	Phe	Gln	Cys	Lys	Val	Arg	Ser	Asp	Val	Lys	Pro	Val	Ile
		195					200					205		Gln

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Trp	Leu	Lys	Arg	Val	Glu	Tyr	Gly	Ser	Glu	Gly	Arg	His	Asn	Ser	Thr
210						215					220				
Ile	Asp	Val	Gly	Gly	Gln	Lys	Phe	Val	Val	Leu	Pro	Thr	Gly	Asp	Val
225					230					235					240
Trp	Ser	Arg	Pro	Asp	Gly	Ser	Tyr	Leu	Asn	Lys	Leu	Leu	Ile	Ser	Arg
				245					250					255	
Ala	Arg	Gln	Asp	Asp	Ala	Gly	Met	Tyr	Ile	Cys	Leu	Gly	Ala	Asn	Thr
			260					265					270		
Met	Gly	Tyr	Ser	Phe	Arg	Ser	Ala	Phe	Leu	Thr	Val	Leu	Pro	Asp	Pro
		275					280					285			
Lys	Pro	Pro	Gly	Pro	Pro	Met	Ala	Ser	Ser	Ser	Ser	Ser	Thr	Ser	Leu
	290					295						300			
Pro	Trp	Pro	Val	Val	Ile	Gly	Ile	Pro	Ala	Gly	Ala	Val	Phe	Ile	Leu
305					310					315					320
Gly	Thr	Val	Leu	Leu	Trp	Leu	Cys	Gln	Thr	Lys	Lys	Lys	Pro	Cys	Ala
			325						330					335	
Pro	Ala	Ser	Thr	Leu	Pro	Val	Pro	Gly	His	Arg	Pro	Pro	Gly	Thr	Ser
			340					345					350		
Arg	Glu	Arg	Ser	Gly	Asp	Lys	Asp	Leu	Pro	Ser	Leu	Ala	Val	Gly	Ile
		355					360					365			
Cys	Glu	Glu	His	Gly	Ser	Ala	Met	Ala	Pro	Gln	His	Ile	Leu	Ala	Ser
	370					375					380				
Gly	Ser	Thr	Ala	Gly	Pro	Lys	Leu	Tyr	Pro	Lys	Leu	Tyr	Thr	Asp	Val
385					390					395					400
His	Thr	His	Thr	His	Thr	His	Thr	Cys	Thr	His	Thr	Leu	Ser	Cys	Gly
			405						410					415	
Gly	Gln	Gly	Ser	Ser	Thr	Pro	Ala	Cys	Pro	Leu	Ser	Val	Leu	Asn	Thr
			420					425					430		
Ala	Asn	Leu	Gln	Ala	Leu	Cys	Pro	Glu	Val	Gly	Ile	Trp	Gly	Pro	Arg
		435					440					445			
Gln	Gln	Val	Gly	Arg	Ile	Glu	Asn	Asn	Gly	Gly	Arg	Val	Ser		
	450					455					460				